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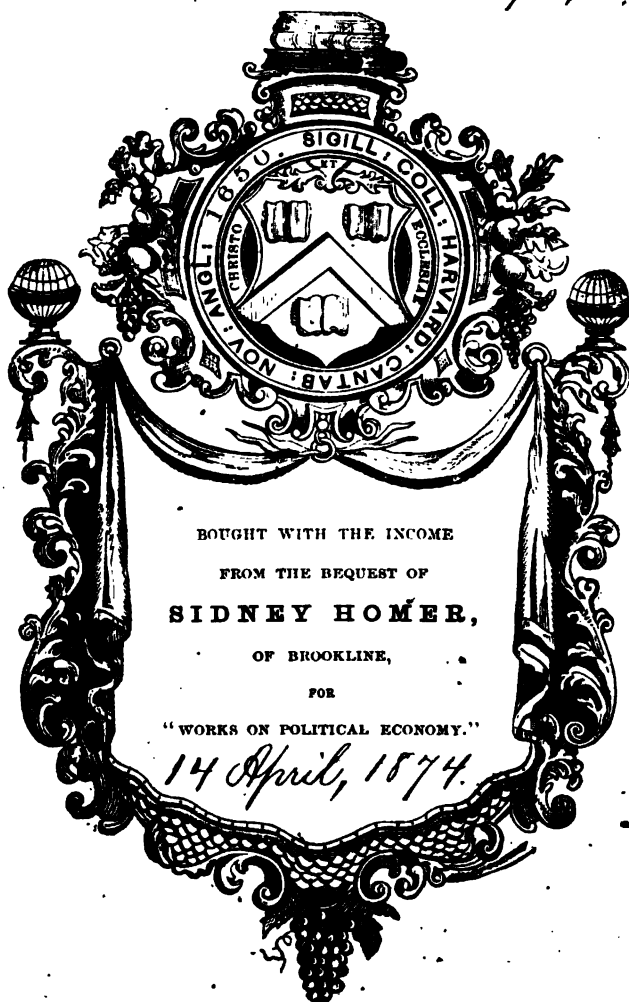
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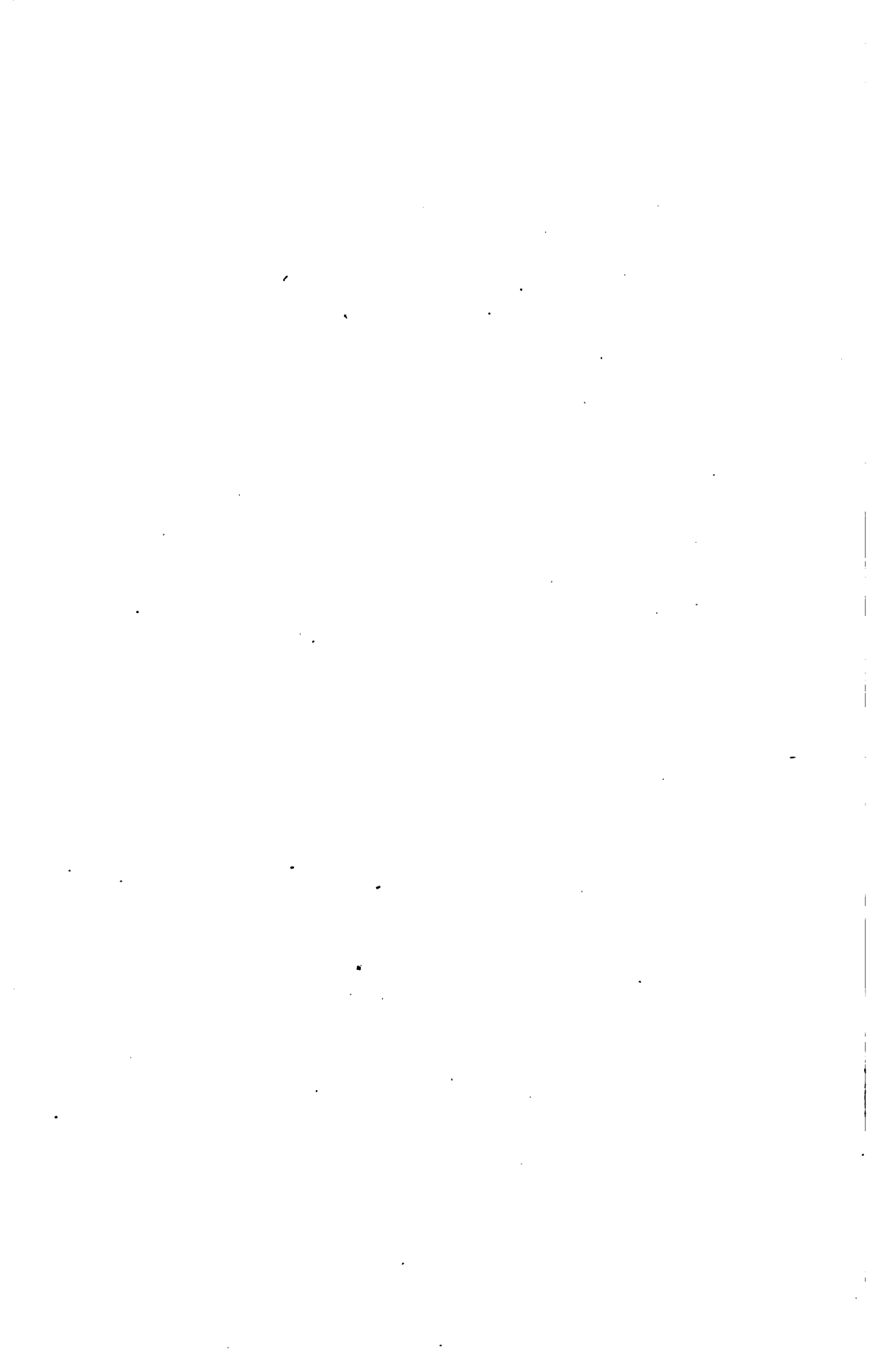
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43d. Sept, 1882.









A
D I C T I O N A R Y
O F
P O L I T I C A L E C O N O M Y .

Nos certe, æterno veritatis amore devicti, viarum incertis et arduis et solitudinibus nos commisimus; et divino auxilio freti et innixi, mentem nostram et contra opinionum violentias et quasi instructas acies, et contra proprias et internas hæitationes et scrupulos, et contra rerum caligines et nubes et undequaque volantes phantasias, sustinimus; ut tandem magis fida et segura indicia viventibus et posteris comparare possemus. Quâ in re si quid profecerimus, non alia sane ratio nobis viam aperuit quam vera et legitima spiritus humani humiliatio.

BACON—*Instauratio Magna—Præfatio.*

For my own part at least, in obedience to the everlasting love of truth, I have committed myself to the uncertainties, and difficulties, and solitudes of the ways; and relying on the divine assistance have upheld my mind against the shocks and embattled ranks of opinion, and against my own private and inward hesitations and scruples, and against the fogs and clouds of nature, and the phantoms flitting about on every side; in the hope of providing at last for the present and future generations guidance more faithful and secure. Wherein if I have made any progress, the way has been opened to me by no other means than the true and legitimate humiliation of the human spirit.—*Spedding's Translation.*

Q

A

DICTIONARY

OF

POLITICAL ECONOMY:

Biographical, Bibliographical, Historical, and Practical.

BY

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X

DICTIONARY

OF

POLITICAL ECONOMY.

ABBOT.

ABBOT, CHARLES, LORD COLCHESTER,—Born 14th October, 1757, at Abingdon, in Berkshire, was the second son of the Rev. John Abbot, D.D., Rector of Colchester. He was educated at Westminster, and Christ Church, Oxford, where he gained the Chancellor's medal for the Latin ode. He was called to the bar soon after 1783, and entered Parliament in 1795, as member for Hellesdon, in Cornwall, a nomination borough of the Duke of Leeds. He was a strong supporter of Mr. Pitt. He spoke pretty frequently, especially on financial subjects. In 1797 he was appointed chairman of the committee on the financial state of the nation, and prepared a great number of reports on that subject. In that year he carried a resolution that the statutes should be distributed much more extensively than they had been done. He strongly supported the principle that all income should be rated as it was found, without reference to particular cases, as, in fact, all other taxation, both direct and indirect, is levied. He moved for and obtained a committee to consider the neglected and disgraceful condition of the public records, and from this proceeded the Royal Record Commission, over which he presided till 1817. He warmly advocated the establishment of a general registration of all instruments affecting landed property. He said that this system had already prevailed for ages in Scotland with the happiest results, in Ireland for nearly a century with similar beneficial results, and in the two most populous counties of England, Yorkshire and Middlesex. It had been found to add a distinct and specific value to the property it secures. "Many recent events," he said, "had contributed to dissipate the prejudices which once hung on this question, and it now remains, only by transcribing one short and approved law, to extend the same benefits through-

ABEILLE.

out the rest of England." This was spoken in 1800, and in 1859 we are as far off as ever from such a benefit. The chief measure, however, of public interest with which his name is associated, is the establishment of the census of Great Britain. He brought in a bill for this purpose on the 19th November, 1800, and, in accordance with it, the first census was taken in 1801, and has been continued decennially since. In 1801 Mr. Abbot was appointed chief secretary to the Lord Lieutenant, and keeper of the Privy Seal of Ireland. On the 10th February, 1802, he was elected Speaker of the House of Commons, on the resignation of Mr. Mitford, and continued to hold that office till the 30th May, 1817, when ill health compelled him to resign. Though prevented by his office from taking part in the debates, he gave much of his attention and influence to the improvement and extension of parliamentary statistics, and he had opportunities of displaying his rhetorical talents in conveying the thanks of the House, on thirteen occasions, to the naval and military officers during the great war. His address to the Duke of Wellington, on the 1st July, 1814, was particularly admired. He was created a peer on the 3rd June, 1817, by the title of Baron Colchester, and died on the 7th May, 1829.

• **ABEILLE, LOUIS PAUL**—Born at Toulouse, 2nd June, 1719, was a member of the Society of Agriculture of Paris, and afterwards inspector general of the manufactures of France, and general secretary of the Board of Trade. He died at Paris, 28th July, 1807. He was an economist of the Physiocrate school, and of the most extreme opinions of that school.

Corps d'Observations de la Société d'Agriculture, de Commerce, et des Arts, établie par les Etats de

Bretagne. Rennes, 1761 and 1762. 2 vols. 12 mo.

Lettre d'un Négociant sur la nature du Commerce des Grains. Paris, 1763.

Effets d'un privilège exclusif sur les Droits de Propriété. Paris, 1764.

Principes sur la Liberté du Commerce des Grains. Paris, 1768.

Faits qui ont influé sur la Cherté des Grains en France et en Angleterre. Paris, 1768.

Mémoire présenté par la Société Royale d'Agriculture à l'Assemblée Nationale, le 24 Octobre, 1789, sur les abus qui s'opposent aux progrès de l'agriculture, et sur les encouragements qu'il est nécessaire d'accorder à ce premier des arts. Paris, 1789.

Observations de la Société Royale d'Agriculture sur la question suivante, qui lui a été proposée par le Comité d'Agriculture et de Commerce de l'Assemblée Nationale: L'usage des domaines congéables, est-il utile, ou non, aux progrès de l'agriculture? Paris, 1791.

Observations de la Société Royale d'Agriculture sur l'uniformité des poids et mesures. Paris, 1790. G.

ABSENTEEISM—The habitual absence of the landed proprietors of a country from their estates.

1. This expression arose out of the discussions on the miserable condition of Ireland; a very large proportion of the evils which afflicted it were attributed to the habitual residence of the greater part of its landed proprietors in foreign countries, where they spent their incomes.

2. The evils which resulted from absenteeism were alleged to be of two sorts, moral and economical. It was said that the habitual absence of the great body of the proprietors demoralized the lower orders by withdrawing the natural control over them; and secondly, it was alleged that the remittance of their incomes to so large an amount impoverished the country to that extent, and enriched the foreign country in which they were spent to an equal extent.

3. The entire question, therefore, is of a very complicated nature; but in the following remarks we shall not consider the moral part of it, but confine ourselves merely to the economical part. We do not contest for one instant the right of the Irish, or any other proprietors, to live where they like, or to spend their incomes where and how they please. The maxim that "property has its duties as well as its rights" may be a very excellent apothegm in morals, but it has nothing to do with Political Economy. And, in fact, in the state of Ireland thirty years ago, it was to be received with some qualification, when the chances were greatly in favor of any man who tried to live on his own property being shot. Men, we are afraid, will not pay much attention to moral maxims, when by doing so they will most probably be shot down like vermin. We shall, then, as we have said, restrict ourselves to the discussion of the simple question—Does absenteeism impoverish Ireland? And to guard the question, if possible, from any misunderstanding, it is not whether it is the same thing to the empire at large where the money is spent, but only whether it is worse for Ireland, and for Ireland alone?

4. To a plain person the proposition would

appear self-evident, that the exportation from a country of an article of value, which money is admitted to be, without any return to counter-balance it, would be a loss to that country. If an Irish landlord were to receive £10,000 as rent in cash, and then go off to Hong Kong, it would appear self-evident that there was a diminution of property in Ireland to the extent of £10,000. And when we consider the innumerable exchanges the circulation of such a sum may give rise to, by which profits are manifestly generated, it seems clear that the withdrawal of it from Ireland must be a loss to that country, and an equal gain to the place in which it is spent.

5. Nevertheless, a distinguished economist has undertaken to demonstrate the startling paradox that absenteeism is no loss, either morally or economically, to Ireland, or to any country. Confining ourselves to the economical part of the question, we shall now enquire how far Mr. McCulloch, the writer alluded to, is right in maintaining that the remittance of these rents, and their expenditure in foreign countries, is no real loss at all to Ireland.

6. That this proposition sounds paradoxical on the face of it Mr. McCulloch himself admits. That, however, is no argument against its being true. But the *onus probandi* certainly lies upon him who first starts a paradoxical proposition. Nevertheless, Mr. McCulloch affirms that no one who holds free-trade doctrines can doubt it, and that those who deny it commit the same error as the believers in the Balance of Trade. These are very startling assertions, and we shall now investigate the way in which he endeavours to establish them.

7. He commences by saying that he confines the discussion only to the spending of income, and the expenses necessarily connected therewith, and its outlay and consumption in housekeeping. He states that the rents remitted may amount to about three or four millions, and then he considers how they are remitted. "Now, as there is no excess of specie in Ireland, and Bank of Ireland notes do not circulate in England, it is obvious they cannot be remitted, except by exporting an equivalent amount of Irish raw produce, or manufactures. Were the absentees to return to Ireland there would be an increased demand for commodities or labor, or both, in the home market, to the extent of four or four-and-half millions, but that would be balanced by an equal diminution in the foreign market."

8. Again, he says, "It may be said that the rents of absentees are remitted neither in specie, nor in bank notes, nor in Irish produce, but in drafts on foreign merchants, or bills of exchange. But what, may we ask, is a bill of exchange? Is it not an order addressed to an individual residing in another part of the same, or in a foreign country, directing him to pay a debt he has already contracted, or is about to contract, to the drawer of the bill, to some other party specified by him. This, then, is the manner in which absentee expenditure operates. The agent of an absentee landlord, after collecting the rents of his principal, say £10,000, buys a bill of exchange with the sum from an Irish merchant, and the latter, in order to supply his correspondent in London, Liverpool, or Paris, on whom the bill is drawn, with funds to pay it, *must*, for it is in no respect optional to him, go into the Irish market,

and buy £10,000 worth of the raw or manufactured products of the country, and send them to the order of his correspondent. What, then, is the difference to Ireland, in so far as the demand for commodities is concerned, whether the landlord be resident or not?" "However it may be turned or twisted, it will be found, on analysing any case that may be presented, that this is the whole difference, in so far as expenditure is concerned, between a resident, and a non-resident landlord. The one exchanges his income for Irish commodities, or their equivalents, which he brings into his house in Ireland, and consumes them there, the other also, through the merchants who furnish him with bills, exchanges his income for Irish commodities, which, or the equivalents for which, he brings into, and consumes in his house in London or Paris. And, therefore, unless the mere locality of consumption be advantageous, it follows that the expenditure of that portion of the annual revenue of a nation which is sent abroad to absentees, contributes as effectually to the general advantage as the expenditure of any other portion of revenue." And then he ends this part by laying down this general proposition:—"It is never, in short, by sending abroad revenue, but by sending abroad the capital by whose agency revenue is produced, that nations are impoverished."

9. In this general proposition lies one of Mr. McCulloch's great fallacies. He maintains that if the revenue only be sent away, the capital is not diminished, and therefore the nation is not impoverished. But surely it is one of the best settled doctrines in Political Economy, that it is chiefly by the accumulation of revenue that capital is increased. If the whole revenue is swept away, the capital may not perhaps be diminished, but it cannot increase. If the revenue had been expended in Ireland, it would have increased the capital of Ireland, she would have possessed much more capital than she actually does, and surely that is equivalent to impoverishment. Sweeping away the revenue prevents the natural increase of capital. The revenue which is spent in foreign countries goes to increase the capital of those countries, and is lost to Ireland, to which it naturally belongs, and that is, to all intents and purposes, an impoverishment of Ireland. It may be perfectly true that it may not diminish the actually existing capital of Ireland, but the natural tendency of capital is to increase, and if it is prevented from becoming what it naturally would, it is an impoverishment.

10. But in unfolding his theory, Mr. McCulloch is soon betrayed into a striking instance of self-contradiction. He was met with the obvious argument that remitting rents to absentees was exactly similar to remitting tribute to a foreign prince. He says, "It is said, however, that these statements prove too much. That the same reasoning which shews that the remittance of rents to absentees is not injurious, will equally shew that a tribute may be paid to foreigners without injury to those who pay it. But the slightest reflection will convince any one that remittances to absentees are not identical with remittances on account of tribute, but totally and completely dissimilar. Suppose that a quantity of linen is exported from Ireland to Liverpool, on account of an absentee. If the absentee returns home, the

exportation will of course cease, but what will Ireland gain by the cessation? His rent may no longer be employed to purchase linen, but if not, it will be employed to purchase other articles, which he will of course consume in his own family; the fact of his being in Ireland or out of it, neither adds to, nor detracts from, the means of living possessed by other individuals. So long as those who consume, and the value of the products which they consume, continue the same, a change in the place of consumption affects themselves only. The case of a tribute is in every respect different. If the remittances to Irish absentees were put a stop to, those to whom they are sent would return to Ireland, and would consume them there. But if the same remittance were sent as a tribute to a foreign country, there would not, in the event of its ceasing, be any one to return to Ireland, and there would in consequence be so much additional wealth left in the pockets of its inhabitants. Nothing, therefore, can be more absurd and contradictory than the statements so frequently put forth by Irish newspapers and demagogues, comparing the remittances to absentees to a tribute, and complaining of the injury which Ireland sustains in sending abroad so large a sum for which she gets no return."

11. Bearing in mind the general proposition he had laid down, that sending away revenue and not capital, is no loss to a country, is it possible to have a more striking instance of self-contradiction? He admits that sending away tribute to a foreign power is a loss to a country, but tribute comes out of revenue, and he has just said that sending away revenue is no loss at all! The government commands the inhabitants to remit a certain quantity of money, that is a diminution of wealth. The landlords command the tenants to remit the same quantity of money, and that is no diminution of wealth; which shews that things that are equal to the same thing, are not equal to each other. He then says, that the distinction between the remittance of tribute and rent consists in this, that the absentees may return if the remittances of rent were stopped! But how does that affect the question so long as they do not return? Until the improbable contingency happens, the effects of the two must be manifestly similar.

12. In truth, if Mr. McCulloch's arguments were true, it is no disadvantage to a country, if the whole estates of the proprietary are entirely mortgaged; and this, no doubt, was one of the principal causes of the enormous remittances from Ireland. The sums due upon mortgage are evidently paid out of revenue, and, according to him, the sending away of these is no loss to the country. But does not the whole world rejoice that Ireland has got rid of her deeply encumbered proprietary? does not the whole world think it one of the greatest blessings Ireland ever received, and which will go far to atone for the calamities of the potato disease, that henceforth the land will be in the possession of a free and unincumbered proprietary? Now, if Mr. McCulloch's doctrine be true, it makes not the slightest difference to a country whether its proprietors are eaten up with debt, whether they be merely so many pauper units, or whether they be wealthy and unincumbered. It is certainly not necessary to waste argument in controverting such a doctrine. Mr. McCulloch stands solitary in such an opinion.

13. But, in fact, the radical error of Mr. McCulloch lies in only looking to the operation of obtaining the rent, and in not looking to what is done with it afterwards. Up to the time of the remittance of the rent no doubt it is immaterial. The difference arises afterwards, because the expenditure of that revenue increases the capital of the country. What is revenue to one man becomes capital to the next. The expenditure of that revenue makes no difference to the landlord, but it makes a very great difference to the tradesmen of all sorts in the neighbourhood. Their capital increases according to the business they do. No person can be so absurd as to deny that a tradesman's capital increases according to the profitable business he does. And of course the capital of the whole community must be the aggregate of the capitals of each individual. Now, if the £10,000 of rent be spent among the tailors, blacksmiths, carpenters, and tradesmen of all sorts in the neighbourhood, it increases the business of each, and therefore it adds to their capital, and they, in their turn, increase the business of their neighbours, and dependents, each in his own sphere. And thus by increasing the quantity of business of each, it increases production and capital.

14. Mr. McCulloch was again met by the assertion that the rents of the Irish landlords, if spent in Ireland, would benefit Irish tradesmen, for which every opulent individual must always have a demand, but that when they lived in London and Paris they employ them in paying the wages of English or French tradesmen, who consequently gain an advantage at the expense of those of Ireland. He pronounces this reasoning to be quite fallacious. "Suppose," he says, "any number of landlords residing at present, and laying out their incomes partly in English manufactures, goods, and colonial products, and partly in products of Irish art, and industry, emigrate to England or France, and *suppose further, that the identical Irish commodities, which they are in the habit of using in Ireland, are sent after them to their new residence.* In this case it is obvious, in the event of the absentees taking their servants along with them, that the wealth of Ireland would be in no degree affected by the change in their place of residence, and what in point of fact is the difference between the hypothetical case, and the actual case of the absentees from Ireland, or any other country? When the duke of Leinster leaves Carton, to establish himself in Carlton terrace, it is probable that the same articles may not be used by him in London, that he would have used had he continued in Ireland. *But if not, the difference is immaterial, for such of them as are of English or foreign origin, must be obtained directly, or indirectly, in exchange for an equivalent amount of Irish produce of some sort or other.*" Now, what a baseless proposition this last is! There is no necessity whatever that the articles bought in England must be obtained in exchange for an equivalent amount of Irish produce.

15. He then says, that absenteeism only changes the direction of labor, and that is all it can do. That produce and linen are the articles in which it is most to the advantage of Ireland to remit rents. And supposing them to return to Ireland, a less amount of their rents would be laid out in

these, and a larger amount in other things. But this would not occasion an increase of the total demand for labor, "*for, if under such circumstances, more people were employed in one way, fewer would be employed in another.*" Nay, Mr. McCulloch maintains that if the landlords were to return, the demand for labor would not be increased, but ten chances to one it would be diminished!

16. He acknowledges that the prevalent notions, on a superficial view, appear to be well founded. "When a wealthy landlord resides on his estate, there is generally, in some contiguous village, a number of little tradesmen, and manufacturers, who work on his account, and who, it is alleged, will be thrown out of employment and left wholly destitute in the event of his removing to another country. This statement is founded on an entire misapprehension of the nature of profits. Those who clamour against absenteeism, take for granted that retail dealers, tradesmen and manufacturers, live at the expense of those who employ them, and who buy their products. Certainly, however, they do no such thing. They are not so very dependent as they are believed to be by others and by themselves. *They are not maintained by the demand of the public, but by their own wits and industry.* Of these they cannot be deprived; and as they have supported them hitherto, they will support them in all time to come. The bootmaker who sells boots at fifty shillings, which cost him only forty shillings of outlay, does not make the ten shillings of profit at the expense of his customer. He produces in a given time a pair of boots equivalent to a worth in silver of fifty shillings, while the various expenses to which he is necessarily put in their manufacture amount when rated in the same medium to forty shillings, and his customers all do the same; they all make similar profits in their respective businesses, that is, they produce quantities equal to fifty shillings, by an outlay of forty shillings. Consequently, in exchanging corn, cloth, or silver, for boots, one party gains nothing at the expense of another. Profit is in every case the result of more being produced in given periods, than is consumed in them."

17. It may be perfectly true that neither party gains at the *expense* of the other, because each party wants what the other has; but how can the shoemaker's boots be worth fifty shillings unless some one will give him that price for them? If nobody will give fifty shillings for the boots, how can the shoemaker sell them? Is it not manifest that the shoemaker gains exactly in proportion to the number of boots he can sell? to the number of ten shillings he can make? To the number of exchanges he can effect? The shoemaker's wit and industry is worth nothing to him, unless somebody will buy his boots. This seems self evident, yet Mr. McCulloch goes on to say, "*It is a radical mistake to suppose that the idea that profits depend on exchanges is only partially erroneous, it is without even so much as the shadow of a foundation.*"

18. Is it necessary to say a word in answer to such a proposition? Seizing the old fallacy that one party gains at the *expense* of another in a commercial dealing, and attributing that to the supporters of this doctrine, which there is no foundation for, he quite overlooks the fact that both parties gain by an exchange, and the quan-

city of the gain depends on the number of exchanges effected. The fact is, his fallacy rests upon the idea that the simple labor adds to the value of the materials, an error which is the bane of Political Economy, because no labor can add to the value of anything, unless something can be obtained in exchange for it.

19. But says Mr. McCulloch, "The declaimers against absenteeism have yet another reason for the faith that is in them. They cry out—do you mean to say that Paris, Rome, and Brussels are not benefitted by the expenditure of English absentees? But if you admit that they are benefitted, must you not also admit that London and Bath derive a proportional benefit from the expenditure of Irish absentees? And if so, does it not follow that Ireland loses whatever they gain? While, however, we admit the premises, we deny the inference which it is attempted to draw from them. We concede that London and Bath are benefitted, though in a small degree, by the residence of Irish absentees, but we deny that Ireland loses what they gain, or that she, in fact, loses anything by their non-residence."

20. Now, by Mr. McCulloch's own reasoning, it follows that London and Bath equally benefit by the Irish landlords whether they live in London or Ireland, or Paris, as he says it is immaterial where they live, but he acknowledges, that by their being in London and Bath these gain. Therefore, the same thing is at the same time quite indifferent, and also better, for London and Bath.

21. Now, it will be seen that by Mr. McCulloch's arguments it would follow, that if the whole British aristocracy from the Queen downwards, and all the landlords were bodily to emigrate to Peking, and have the whole of their incomes remitted to them, it would be no loss to Great Britain! Nay, he says, that such a proceeding would probably give rise to a greater demand for labor, and that the presence of the landed proprietors only impedes industry in England. He says, that the presence of the landed proprietors in their own country impedes the industry of that country, but increases the industry of a foreign country in which they may reside; that their presence is injurious to their own country, but beneficial to a foreign country! So that the beneficial virtue appears to reside in their being foreigners. Surely the simple statement of such a paradox is its best refutation.

22. Mr. McCulloch has shown an inaccurate appreciation of the facts, when he says that the return of absentees would only change the direction of labor, and if there were more employed in one way, there would be fewer in another. Any one who knows anything of country districts, knows that country shopkeepers are totally idle half their time. Perhaps for several hours every day scarcely a customer enters their shop. Now, the presence of a wealthy proprietary gives them much more employment. But with an absentee proprietary, employment falls off, their business won't pay, and if they make no profits, they desert the country, and emigrate with the little capital they have to other countries. Thus their country loses both men and capital, in which wealth is usually supposed to consist. Consequently the remittance of all the revenue of a country, not only prevents the natural increase of capital, but causes a positive diminution, because

the existing capital does not meet with an adequate return. So far is it from being true, as Mr. McCulloch says, that profits are not made by exchanges, that it is by and through them alone, that profits are made.

23. Nor is Mr. McCulloch's attempt to demonstrate this proposition by means of the exchanges at all more successful. Consider it how we may, there must always be the remittance of the rent, without any return. The simplest case is the landlord receiving the rent himself and leaving the country with it, and whether he takes it himself, or has it sent to him, it must come exactly the same in the end. When Mr. McCulloch says that Irish produce is purchased to send to England to pay the rent, he forgets that when that produce is sold in England to obtain the rent, that rent does not come back. So that turn it which ever way we will, the ultimate result must always be the remittance of a large quantity of produce without any return. And because the simple operation may have an additional operation of an exchange superadded to it, that can make no difference in the final result. To suppose that it could, would be to affirm that if equal quantities be added to unequal ones, the totals are equal.

24. If Mr. McCulloch's argument were true, it would follow that if a band of pirates were to land in Ireland, and carry off a quantity of booty, that would be no loss to Ireland; or if a person were to enter a shop, and take away a quantity of money from the till, and afterwards come back again and buy a quantity of goods from the shopkeeper and pay him with his own money, that would be no loss to him. The former of these cases is an exact parallel to the simple remittance of rent, the latter is an exact parallel to the operation by means of the exchanges which Mr. McCulloch has brought forward. It is quite clear the ultimate result must be the same.

25. Mr. McCulloch says that his theory has never been answered, and concludes that "the clamor against absentee expenditure, is, in truth, as worthless as can well be imagined. It has no better foundation than the belief in witchcraft, or in *clairvoyance*, or in the efficacy of sham sinking funds." The foregoing observations will be found, we trust, to furnish an answer to it. The allegation that the common opinion involves the same error as the belief in the balance of trade is perfectly erroneous, because that fallacy is based upon the idea that money is the only species of wealth, which the opinion about absenteeism in no way whatever involves. So far from the common opinion being as absurd as a belief in witchcraft, it is unquestionably true, and Mr. McCulloch's theory is one of the most transparent sophisms that ever was put before the world.

ACCUMULATION—See CAPITAL and MONEY.

ACEVEDO, ANTUNEZ Y.—Member of the Supreme Council of the Indies.

Memorias Historicas sobre la legislacion y gobierno del comercio de los Espanoles con sas colonias en las Indias Occidentales. Madrid, 1797.

Mr. McCulloch states that this work contains much valuable information on the subject of the Spanish colonies.

ACHENWALL, GODFREY—Has the reputation of being the founder of the science of Statistics. He was born at Elbing, 20th October, 1719. He was educated at Jena, Halle, and Leipsick. In 1746 he settled at Marbourg, and taught history, public law, and statistics. In 1748 he went to Goettingen, and was soon afterwards appointed professor there, in which post he continued with great fame and success, until his death on 1st May, 1772. He travelled in several foreign countries, and published memoirs upon the constitution and political economy of each, which were much esteemed. He endeavoured to reduce to a systematic science the vital forces, the nature, the resources, and the means of prosperity of each. To this he gave the name of *statistics*, or the science of the state. His last work was *Observations on the Finances of France*.

ADAMS, JOHN QUINCY,—Was the eldest son of John Adams, the second president of the United States, and was himself the sixth. He was born at Quincy, Massachusetts, 11 July, 1767. In 1777 his father was appointed one of the commissioners to France, on behalf of the Americans, and took his son with him, who early displayed the most extraordinary powers, which were further brought out by the society of the eminent men with whom he came into contact. In 1781, at the age of 14, he was appointed private secretary to the American mission to Russia, and he discharged these duties to the perfect satisfaction of the envoy for 14 months; and then set off alone for the Hague, where his father was minister, to go to school there. He subsequently returned to the United States and studied at Harvard University, where he obtained distinguished honors, the authorities refusing all college fees in consideration of the eminent services of his father. He then adopted the profession of the law, but did not make much progress for four years. In 1793 the Union was greatly agitated with the question whether they ought to take part in the war which had broken out between France and England, after the execution of Louis XVI. Washington was strongly in favor of entire neutrality in all European quarrels; Genet, the French envoy, made the most passionate appeals to the people through the press, and the cabinet were divided on the question. Young Adams wrote a series of articles in the Boston papers, advocating a policy of neutrality, and discussed the principles of international law which affected the case, in so masterly a manner, that his letters created a great sensation, not only in America but in Europe. They were reprinted in England, and translated into French and German, and were generally attributed to his father. Washington esteemed them so highly that he immediately appointed him minister at the Hague. And when that country was so disorganized by the French invasion as to render such an office useless, he sent him to Lisbon, in 1796; and to Berlin, in 1797; and expressed his decided opinion to his father that he was the most valuable character the country had abroad, and the ablest of all the diplomatic corps. During his stay at Berlin he negotiated a very able treaty with Sweden, and in 1800 he made a tour in Silesia, and made himself thoroughly master of its economical condition. The results of his observations were published in a

volume in 1804, having previously appeared in a series of letters in a newspaper. He was recalled in 1801, as his father failed to be re-elected as President. He was then elected to the senate of Massachusetts, who sent him as their representative to the senate of the Union, and he held this office till 1808, when his opinion being contrary to that of the majority of his constituents on the neutrality question, which then vehemently agitated the Union, he resigned. In 1806 he had been elected professor of rhetoric and oratory at Harvard University, where his lectures were eminently successful.

In 1809 he was sent to Russia by President Madison, as the first United States minister to Russia, where he gained the high esteem of the Emperor, who through his influence subsequently offered to mediate between Great Britain and the United States. This did not succeed, but he was afterwards one of the commissioners who negotiated the treaty of peace in 1814 at Ghent. He was appointed minister to England in 1815, and negotiated a convention of commerce with that country. In 1817 President Monroe appointed him Secretary of State, and while he held this office he published his *Report on Weights and Measures*, in 1821.

In 1824 the Representatives elected him President out of a number of candidates, none of whom had the legal majority; and after the end of his term of office, he adopted the unprecedented step of being elected to the House of Representatives, in which he continued to sit for the remainder of his life. The two great questions of the day were protection and finance. He was placed by the Speaker at the head of the Committee on Manufactures. He was favorable to a moderate protection to manufactures, and also to the National Bank of the United States, whose utterly insolvent condition was not then known. Upon all these subjects he spoke and prepared reports of great value.

After Great Britain had emancipated her slaves in 1834, the question excited the warmest controversies in the United States, and it was after this period that the great fame of Adams as an orator arose. It was after his sixty-seventh year that his extraordinary powers burst forth with the most unexpected splendour, and for ten years continued with undiminished vigour, so that he acquired the popular name of the "old man eloquent." He was, during all this period, an ardent advocate for emancipation. He was struck by palsy in 1846, and died in 1848, at Washington.

He published a great number of short pieces, orations, &c., but his principal economical work is his *Report on Weights and Measures. Prepared in obedience to a resolution of the Senate of the United States, 3rd March, 1817*. Washington, 1821. This is a most valuable treatise on the whole theory of weights and measures, and their origin and history from the earliest times. He gives an account of the weights and measures of the Jews, the Greeks, the Romans, and then a very full history of those of England, with the acts of Parliament relating to them. He then gives a very full and valuable account of the origin and establishment of the French decimal system, which he does with a strain of declamatory fervour, which seems more congenial to Gallic than to Anglo-Saxon ears. The Report concludes

by an account of the metrical system of each State of the Union, and the laws affecting them.

ÆSCHINES SOCRATICUS—Was one of the favorite disciples of Socrates, who, indeed, said he was the only one who knew how to pay him proper respect. Some writers, on the authority of Suidas, attribute to him three dialogues, which are often printed along with Plato, but which are confessedly spurious, according to Diogenes Laertius. Modern critics pronounce them not to be genuine works of Æschines, without being able to assign them to any one else. One of them, *The Eryxias*, or, *About Wealth*, is, if the date attributed to it be true, the earliest treatise we have on an Economical subject. From the mention of the embassy to Sicily in it, Fischer assigns to it the date of 427 B.C. Whether we assign this dialogue to Æschines or not, is of very small importance, as it is manifestly of the Socratic school, and it is quite impossible to say that he did not write it. It is remarkable, however, not only as the earliest treatise on Political Economy, but for containing truths in the science, which are only just now beginning to be acknowledged, and which are far in advance of Adam Smith and Ricardo. That the sentiments are the genuine ones of Socrates, we are ready to believe, because we know no one else in antiquity, who was capable of perceiving the truths that he did. We shall give a pretty long extract from this dialogue, partly because it is so little known, and partly from the importance of the doctrine it maintains. The ambassadors having returned from Sicily, and discoursing on the subject with Socrates, mention that they had seen the wealthiest man in Sicily. This leads Socrates to a general discussion on the nature of wealth. The interlocutors at this part of the dialogue are Socrates and Eryxias. After some preliminary discussion, Socrates says:—

“And it remains to consider what wealth itself is, for if we do not know this first, we shall not be able to agree as to what evil is, and what good is. And I am ready to look into the matter along with you, as far as I am able. Let then the one who says that wealth is a good thing, say how the case stands.”

Eryx.—“But I do not, O Socrates, define wealth in any better way than others do. For to possess much money is to be wealthy. And I think that Critias here does not think wealth to be anything else.”

Soc.—“And yet, still this remains to be considered, what sort of money we speak of, that we may not soon afterwards appear to be at variance again. For instance, the Carthaginians use such money as this: in a small bit of leather is enclosed something as large as a stater, but what that is which is bound up, nobody knows, except the makers. Then, when it is sealed up, they use it as money. And he who possesses the most of these things, seems to have the most money, and to be the wealthiest person. But if any of us possessed the greatest possible quantity of this, he would not appear to be any the richer than if he had so many pebbles from the hill. And at Lacedæmon, they use a piece of iron as money, and this too, useless iron. And he who possesses a great weight of this iron, is esteemed wealthy, but in any other place its possession is worth nothing. And in Æthiopia they use carved stones,

which a Laconian could make no use of. But among the nomade Scythians, if any one possessed the house of Polytion, he would not be thought any more wealthy than if with us any one possessed Lycabettus. It is plain, then, that each of these cannot be property, if some of those who have them do not appear to be wealthier on this account. But there are some persons to whom each of these things is money, and those who possess them are wealthy, and to others they are neither money, nor are they any the richer for having them. Just as the same things are not good or base to all, but different to different persons. If, then, we wish to inquire why among the Scythians houses are not wealth, but they are so to us, or why among the Carthaginians skins are so, but not with us, or why among the Lacedæmonians iron is wealth, but not with us, should we not best discover the reason thus: for example, if any one at Athens should happen to possess a thousand talents weight of the stones in the market place, of which we make no use, is it that he would be thought wealthier on that account?”

Eryx.—“I think not.”

Soc.—“But if he happened to possess a thousand talents of the stone Lichnite, should we say that he was very wealthy?”

Eryx.—“Certainly so.”

Soc.—“Is it not for this reason, that one is useful to us, and the other useless to us?”

Eryx.—“Yes.”

Soc.—“And is it not the reason that houses are not wealth among the Scythians, that they have no need for a house? Nor would any Scythian prefer any house for himself, however beautiful it might be, rather than a sheep-skin cloak, because the one is useful and the other useless to him. So again, we do not think the Carthaginian money to be wealth, for we can acquire nothing that we want with it, as we can with silver, so that it is useless to us.”

Eryx.—“So it seems.”

Soc.—“Whatever then is useful to us, that is wealth, and whatever is not useful to us, that is not wealth.”

Eryx.—“How is this, Socrates? Is there not something we use in speaking to each other, and in inquiring and many other things? Are these then wealth to us, and in truth they appear to be useful. Not even yet has it appeared to us what wealth is. For nearly all of us agree that to be wealth, it must be something useful, but what sort of useful things, since it is not every kind of useful things which is wealth.”

Soc.—“Come, then, should we not rather investigate the question in this manner? What is that for which we use wealth, and for what object has the possession of wealth been discovered? As, for instance, drugs to remove diseases. For so, perhaps, it would be clearer to us, since it would necessarily appear that whatever happens to be wealth must be useful also. And of useful things, there is a certain species we call wealth. It remains to inquire for the sake of what use are the things which are called wealth to be used. For all things are to be called useful, which we make use of in some operations; just as all things which have life, are living things. But of living things, there is one kind which we call man. And if any one were to ask us, if we were free from what, should we not require the physician's art, or its

instruments, we should be able to say, that if diseases were driven away from our bodies, and did not all exist, or if existing, were immediately driven away. It seems then that medicine is the science which is useful for this purpose, to remove diseases. And if any one should again ask us, if what were removed from us, should we have no use of wealth, should we be able to say? But if not, let us again look into the matter. Come: if man could live without meat and drink, and was not hungry nor thirsty, is there any reason why he should want these very things, or silver, or anything else, that he might acquire them?"

Eyrz.—"I think not."

Soc.—"Are not other things then in the same way? For if we did not require for the service of the body, what we now want, both heat and cold, and sometimes other things, of which the body being in want, requires that which we call wealth, or utilities, would not be wanted by us. And if no one at all wanted any of these things, for the sake of which we now wish to possess wealth, in order that we may minister to the desires and the necessities of the body, for the sake of which we at any time want any thing. If then the possession of wealth is useful for this purpose, to minister to the wants of the body, if this should be taken away from us, we should have no use for wealth, and perhaps there would be no wealth at all."

Eyrz.—"So it seems."

Soc.—"It appears then to us, it seems, that those things which are useful to effect this purpose, are wealth."

He acknowledged that these were wealth, but yet the reasoning troubled him exceedingly.

Soc.—"But what are these kinds of things? Shall we say that the same things can be useful to the operations at one time, and useless at another?"

Eyrz.—"I should not say so. But if we have any want of the same thing for the same purpose it appears to me to be useful. And if not so, not so."

Soc.—"If then without fire we could work a brazen statue, we should not want fire for this operation. And if we did not require it, it would be of no use to us. And the same argument holds good with respect to other things."

Eyrz.—"It seems so."

Soc.—"Therefore of those things, which anything can exist without, none of them would be useful, at least for that thing."

Eyrz.—"Certainly not."

Soc.—"If then we should at any time appear to be able without silver, and gold, and other such things which we do not use for the body, as food and drink, and garments, and bedding, and houses, to satisfy the wants of the body, so as no longer to want them, neither silver nor gold, nor other such things, would be useful to us for this purpose, if it were able to exist without them."

Eyrz.—"They would not."

Soc.—"Nor would these things appear to us to be wealth, if they were not useful; but those things would appear to be wealth by which we could obtain what is useful to us."

Eyrz.—"O Socrates, I could never be persuaded of this, that gold and silver, and other things of this sort, are not wealth. For this I am firmly convinced of, that the things which are useless to us are not wealth, so that what is most useful to

us for this purpose is wealth. Yet I am not sure that these things do not happen to be useful to us for living, if by them we obtain necessities."

Soc.—"Come, then, how shall we settle this matter? Are there certain persons who teach music, and reading, or any other science, who obtain, in return for this instruction, the necessities of life as a remuneration for such things?"

Eyrz.—"Certainly there are."

Soc.—"Therefore, such men as these could make their living by such science, exchanging some of it for necessities, as we do for gold and silver."

Eyrz.—"I agree to that."

Soc.—"If, then, they gain by this means what they require for their living, this thing would be useful towards their subsistence. For we said that silver was useful for this purpose, that we are able by it to acquire what is necessary for life."

Eyrz.—"It is so."

Soc.—"If, then, these sciences are useful for this purpose, they appear to us to be wealth, for the very same reason that gold and silver are so, and it is plain that those who possess them are richer," &c., &c.

In this treatise, which is the earliest known to exist on the subject, are contained several of the fundamental conceptions of Political Economy. The author, for instance, saw clearly that value consists in exchangeability, and that all value is local, that is to say, that a thing may be valuable in one place and among some people, which is utterly valueless in another place, and among other people, and consequently that whatever has the quality of exchangeability possesses value, no matter what its nature is, or however small the sphere of its exchangeability may be. This principle is at the very root of Political Economy, and from its having been very imperfectly seen and developed, is one of the chief causes of the imperfect state of the science at the present day. For upon this doctrine the whole theory of the value of instruments of credit rests, which is, in our opinion, completely misconceived by the most eminent writers on Political Economy. (*ANNUITIES. CREDIT.*) Again, the writer of this treatise saw that each of the professions, and sciences, is a great estate, which produce utilities which are genuine wealth to the possessors of them. That intellectual wealth, in fact, is part of the national capital. The omission of this is one of the chief defects of Adam Smith and Ricardo, and it is one of the most conspicuous merits of the modern French school of Political Economy, at the head of which stands J. B. Say, to have thoroughly understood this principle, and made it an integral part of their system of Political Economy. Mr. J. S. Mill has also apprehended it, but not to a sufficient extent. (*CAPITAL.*) Upon the whole then, we see that this author not only clearly understood the fundamental conception of the science, but made such an advance in it, as Political Economists are only now beginning to understand.

AGAZZINI, MICHEL—

La science de l'Economie Politique, ou principes de la formation, du progrès, et de la décadence de la richesse, et application de ses principes à l'administration des nations. Paris and London, 1822.

AGIO.—Certain banks, such as those of Venice, Amsterdam, and Hamburg, were instituted for the purpose of securing a uniform standard of payment in mercantile contracts, and issued notes which were always exchangeable for a fixed quantity of bullion. The current money was usually deteriorated by wear and tear, and consequently the bank money was usually more valuable than the current money. The difference was called the *agio*, or premium. The name is likely to mislead, because it was evidently the current money that was at a discount, and not the bank money that was at a premium. As the difference, or *agio*, varied from time to time, it gave room for speculation, which was named *agiotage*, which is the French term for stock jobbing or speculating in the price of shares. During the suspension of cash payments by the Bank of England from 1797—1819, the market or paper price of gold was almost invariably somewhat, and for a considerable period, very greatly above the mint price, or bullion price. This difference corresponded to the *agio* on bank money, and has given rise, from the inaccurate language in which it was expressed, to the most protracted controversies, for it has always been called a rise of the market price of gold, whereas it is quite clear that it should have been called a fall in the value of the bank note, and then not one of these controversies would ever have arisen. There is a small *agio* at present between Bank of England notes and gold bullion. By law bank notes are demandable at the rate of £3 17s. 9d. per ounce of standard bullion, the difference of 1½d. between that and the mint price being supposed to defray the interest of the money during the time it takes to be coined at the mint. The word *agio* is also applied in France to the difference between the commercial or market relation of gold and silver and the legal relation. (BANKS OF VENICE, AMSTERDAM, HAMBURG.)

AGNES, J. A.—Doctor of Laws, and Advocate at Saint Brieuc.—

De la Propriété considérée comme principe de conservation, ou de l'hérédité. Paris, 1840. 2 vols.

It contains an historical account of the origin and modification of the rights of property in different stages of society. G.

AGOULT, CHARLES CONSTANCE CESAR LOUP JOSEPH MATHIEU D'—Born at Grenoble, in 1747, nominated Bishop of Pamiers, 13 May, 1787, resigned in 1801, and died at Paris, 21 July, 1824. A writer on a great number of different subjects. Those relating to Political Economy are—

Projet d'une banque nationale, ou moyen de tirer de France la crise actuelle. Paris, 1815.

Eclaircissement sur le projet d'une banque nationale, et réponse aux objections faites contre ce projet. Paris, 1816.

Des impôts indirects et des droits de consommation, ou l'essai sur l'origine et le système des impositions Françaises, comparé avec celui de l'Angleterre. Paris, 1817. G.

ALAUZET, FRANÇOIS ISIDORE—Born at Alexandria, in Sardinia, in 1807. Head of a department in the Ministry of Justice.

Traité générale des Assurances. Assurances maritimes, terrestres, mutuelles, et sur la vie. Paris, 1844, 2 vols. G.

ALBON, CLAUDE CAMILLE FRANÇOIS D'—The lord of Yvetot, in Normandy, was born at Lyons, in 1753. He passed his life in travelling and writing, and was member of several learned Academies. His works are on a great variety of subjects, especially political and agricultural. He was an ardent admirer of Quesnay, and his school of Political Economy. He died in 1789. His works relating to Political Economy are—

Observations d'un citoyen sur un nouveau plan d'impositions. Amsterdam and Paris, 1774.

Eloge de Quesnay. Paris, 1775.

ALES, PIERRE ALEXANDRE D'—Viscount of Corbet, of an ancient family in Touraine, was born 18 April, 1715. Entered the army at 18, and served on land and at sea till 1741, when he retired from ill health. He then devoted himself to literature and agriculture, and adopted the doctrines of the Economists. The time of his death is unknown. Of his numerous works on moral philosophy, history, politics, and agriculture, the one that chiefly relates to Political Economy is—

Nouvelles observations sur les deux systèmes de la noblesse commerçante ou militaire. Amsterdam, Paris, 1758.

ALGAROTTI, FRANCESCO—The son of a wealthy Venetian merchant, was born at Venice, 11th December, 1712. He studied at Rome, Venice, and Bologna. He was celebrated for his various acquirements in a great number of different sciences, though he cannot be said to have attained the highest eminence in any. His great merit was in rendering science popular among the upper classes. He early travelled to Paris and London, where he met Lord Baltimore, who invited him to accompany him to St. Petersburg. Having afterwards gone to Germany, he became acquainted with Prince Frederick of Prussia, who was so pleased with him that immediately after he came to the throne, he invited him to Potsdam. Algarotti accepted the invitation, and remained there till nearly the close of his life. Frederick created him a Count, and made him his chamberlain. Finding, however, the climate too severe for him, he returned to Italy, and devoted himself to the publication of his works, and the study of the fine arts. He died at Pisa, 3rd May, 1764. His writings on a great variety of subjects, are very numerous, those relating to Political Economy, are—

Travels in Russia, with the history of the metals of that country.

Saggio sopra il commercio, con alcuni Framenti Economici.

Published in Custodi's collection of the Italian Economists. J. B. Say and Blanqui speak highly of Algarotti's Economical works.

ALISON, ARCHIBALD, SIR, BART.—Son of the Rev. Archibald Alison, born at Kenley, in Shropshire, his father's vicarage, 29th December, 1792. He was educated at Edinburgh, and

called to the Scotch bar in 1814. In 1828 he was appointed sheriff of Lanarkshire, in 1851 elected Rector of Glasgow University, and D.C.L. of Oxford. In 1852 he was created a Baronet by Lord Derby. Sir Archibald Alison's reputation principally depends upon his *History of Europe from 1789 to 1815*. The economical discussions in that work, and its continuation, would fill a moderate sized volume. His separate works relating to Political Economy, are his—

Principles of Population. 2 vols. Edinburgh. 1840.

England in 1815 and 1845. Edinburgh. 1846.

Free Trade and a Feattered Currency. Edinburgh. 1847.

And a number of essays originally published in *Blackwood's Magazine*, and republished in 3 vols. 8vo. 1850. Those relating to Political Economy are—

The Commercial Crisis of 1837. *Free Trade and Protection*.—*The Navigation Laws*.—*The Crowning of the Column and the Crushing of the Pedestal*.—*Free Trade at its zenith*.—*Direct Taxation*.—*Free Trade, Reform, and Finance*.

ALLARDYCE, ALEXANDER, M.P.

Address to the Proprietors of the Bank of England. London. 1798.

ALLOY.—The precious metals, gold and silver, in their native state, are much too soft to be capable of being used as coins, or any other instruments. It is, therefore, necessary to mix them with a certain portion of harder metal, which is called alloy. By a curious and universal law in chemistry, the mixed metal is harder than either of its constituents. Copper is the alloy used in the British coinage, and the proportion in the gold coinage is eleven parts of pure gold to one of copper; or, as the purity of gold is measured by twenty-four aliquot parts termed *carats*, standard gold is said to be twenty-two carats fine. The proportion in silver is that used since the days of William the Conqueror; it is eleven ounces two dwts. fine to eighteen dwts. alloy, and for centuries it has been called the "Old right standard of England." It has been found by experience that these proportions confer the greatest amount of durability on the coinage. The French with their love of the decimal system, have carried it into their coinage, which is nine parts fine, and one part alloy, but its durability is inferior to that of the British coinage.

ALPHONSE, LEWIS.—Born at Bordeaux, March 10, 1743. A chemist of an enthusiastic turn of mind, an ardent revolutionist, and a disciple of Mesmer. His love for politics having destroyed his business, he retired to Dax, and turned his attention to agriculture. He returned to Bordeaux in 1799, and died February 2, 1820.

Mémoire sur la monnaie de billon.

AMEILHON, HUBERT PASCAL.—A member of the Academy, and Librarian of the City of Paris for thirty-eight years, and of the Arsenal for fourteen years, was born at Paris, August 5, 1730. He became an ecclesiastic, and wrote a considerable number of works. In 1766 he was admitted a member of the Academy of Belles Lettres, on writing his *History of the Com-*

merce and Manufactures of the Egyptians. In 1779 he founded, along with Roubaud, the *Journal d'Agriculture, Commerce, Arts et Finances*. He was elected member of the Constituent Assembly, and an ardent revolutionist. He was one of the commissioners on monuments, and for the examination of the titles to nobility, and several other revolutionary committees of great violence. In the course of his official duty he caused to be destroyed 652 volumes of original documents relating to the titles and armorial bearings of the French noblesse and French history, and all sculptures, monuments, statues, and other works of art which bore the ensign of the French royalty. On the other hand, he saved and gathered together the libraries of the suppressed convents, and collected 800,000 volumes, among which were the libraries of Malesherbes, Lavoisier, and several other persons of note, which were afterwards restored to the proper heirs of their owners. He devoted six or seven years to classify and arrange the books so acquired. When France settled down under the sway of Napoleon, Ameilhon resumed his literary labours, and on the creation of the Institute, he was elected a member of the department of history and ancient literature. Besides his *History of Ancient Commerce*, he wrote—

Sur la Métallurgie.

Sur la Pêche des Anciens.

ANDERSON, ADAM.—Born in Scotland in 1692. He came to England, and obtained a situation in the South Sea House, where he remained 40 years, and rose to be chief clerk of the stock, and new annuities. He labored for many years at his *Historical and Chronological Deduction of Trade*. 2 vols. folio. London, 1762. Though a work of great labor, it is in many respects very inaccurate, and the author is infected with many of the old exploded fallacies in Political Economy, such as the Balance of Trade, a delusion, however, which continued to blind many much greater authorities to a much later period, and therefore we must not blame him too much. In other respects his views were more liberal and enlightened. His work is better known under the name of Macpherson's *Annals of Commerce*. This author having rewritten the earlier portion of it, and amended the latter, published it with a new title, and under his own name (MACPHERSON.) Anderson died in 1765.

ANDERSON, JAMES, LL.D., F.R.S., &c.—One of the great improvers of British agriculture, was born at Hermiston, about six miles from Edinburgh, in 1739. He was the son of a small farmer, and was left an orphan at fifteen. Against the advice of his friends, he determined to manage his paternal farm, but upon reading Home's *Essay upon Agriculture*, he found he could not understand it without a knowledge of chemistry. He accordingly went to Edinburgh to attend the lectures of the celebrated Dr. Cullen, with whom he formed an intimate friendship, which lasted till his death. In 1763 he left his native farm, and took one in the wildest part of Aberdeenshire. It was named Monkshill, of about 1,300 acres, and almost in a state of nature. In his efforts to reclaim this farm, he turned his attention to planting, and similar subjects, and began to contribute a series of articles

on these operations to an Edinburgh magazine, under the signature of Agricola. In 1768 he married Miss Seton, of Mownie, and acquired that estate in right of his wife. In 1780 the University of Aberdeen conferred upon him the degree of LL.D. In 1783 he removed to Edinburgh, for the education of his children, and having written a pamphlet on the Northern Fisheries, the government employed him to make a survey of the Western Highlands and Islands. In 1797, he removed to Isleworth, near London, and in March, 1799, commenced the publication of his *Recreations in Agriculture*, which he continued until April, 1802. His health after this broke up, and he died, 15th October, 1808.

He was the inventor of the two-horse plough, without wheels, to which, more than to any other single cause, the immense progress of Scottish agriculture is due. He was the author of a great number of articles and papers, especially on all matters relating to agriculture, and his writings exercised a great influence in advancing its knowledge and cultivation. He was elected a member of the Royal Society, and a great many other learned bodies.

However great his merits and usefulness might have been in his own day, Anderson's chief claim to interest at the present time is, that he was the originator of the idea that Rent springs from the unequal fertility of different soils, which is the basis of Ricardo's famous theory of Rent. Adam Smith had laid it down that high rent was one of the causes of the high price of corn, from which it naturally followed that if the landlords gave up their rents, corn would be so much lower. In 1777 a new corn bill was brought into Parliament, and Anderson wrote a pamphlet called "*An Inquiry into the Nature of the Corn Laws, 1777*," for the purpose of advocating a sliding bounty. In the course of this, he shews the entire fallacy of Adam Smith's idea that the payment of rent influenced the price of corn. He shews that the price of corn depends entirely upon supply and demand, and that all the variations in price are caused by a change in the relation of supply and demand. He shews well that rents entirely depend on the price of corn, and that any rise in the price would only temporarily benefit the farmer, but ultimately it would entirely go to the landlord.

In a note at page 46 of this pamphlet, he broaches his theory of Rent, which we quote here, and shall comment upon, together with Ricardo's and other theories.—(RENT, RICARDO.)

"It is not, however, the rent of the land that determines the price of its produce, but it is the price of that produce which determines the rent of the land; although the price of that produce is often highest in those countries where the rent of land is lowest. This seems to be a paradox that deserves to be explained.

"In every country there is a variety of soils, differing considerably from one another in point of fertility. These we shall at present suppose arranged into different classes, which we shall denote by the letters A, B, C, D, E, F, &c., the class A comprehending the soils of the greatest fertility, and the other letters expressing different classes of soils, gradually decreasing in fertility as you recede from the first. Now, as the expense of cultivating the least fertile soil is as great, or greater, than that of the most fertile field, it

necessarily follows, that if an equal quantity of corn, the produce of each field, can be sold at the same price, the profit on cultivating the most fertile soil must be much greater than that of cultivating the others, and as this continues to decrease as the sterility increases, it must at length happen that the expense of cultivating some of the inferior classes will equal the value of the whole produce.

"This being premised, let us suppose that the class F includes all those fields whose produce in oatmeal, if sold at 14s. per boll, would be sufficient to pay the expense of cultivating them, without affording any rent at all. That the class E comprehended those fields, whose produce, if sold at 13s. per boll, would free the charges, without affording any rent, and that, in like manner, the classes D, C, B, and A consisted of fields, whose produce, if sold respectively at 12, 11, 10, and 9 shillings per boll, would exactly pay the charge of culture, without any rent.

"Let us now suppose that all the inhabitants of the countries where such fields are placed could be sustained by the produce of the first four classes, viz. A, B, C, and D. It is plain that if the average selling price of oatmeal in that country was 12s. per boll, those who possess the fields D could just afford to cultivate them without paying any rent at all; so that if there were no other produce of the fields that could be reared at a smaller expense than corn, the farmer could afford no rent whatever to the proprietor of them, and if so, no rents could be afforded for the fields E and F, nor could the utmost avarice of the proprietor, in this case, extort a rent for them. In these circumstances, however, it is obvious that the farmer who possessed the fields in the class C could pay the expense of cultivating them, and also afford to the proprietor a rent equal to one shilling for every boll of their produce; in like manner the possessors of the fields B and A could afford a rent equal to two or three shillings per boll of their produce respectively. Nor would the proprietors of these fields find any difficulty in obtaining these rents, because farmers, finding they could live equally well upon such soils, though having these rents, as they could upon the fields D, without any rent at all, would be equally willing to take the one as the other.

"But let us again suppose that the whole produce of the fields A, B, C, and D, was not sufficient to maintain the whole of the inhabitants. If the average selling price should continue at 12s. per boll, as none of the fields E and F could admit of being cultivated, the inhabitants would be under the necessity of bringing grain from some other country, to supply their wants. But if it should be found that grain could not be brought from that other country at an average under 13s. per boll, the price in the home market would rise to that rate, so that the fields E could then be brought into culture, and those of the class D could afford a rent to the proprietor, equal to what was formerly yielded by C, and so on of the others; the rents of every class rising in the same proportion. If these fields were sufficient to maintain the whole of the inhabitants, the price would remain permanently at 13s., but if there was still a deficiency, and if that could not be made up for less than 14s. per boll, the price would rise in the market to that rate, in which

case the fields F might also be brought into culture, and the rents of all others would rise in proportion.

"To apply this reasoning to the present case, it appears that the people in the Lothians can be maintained by the produce of the fields A, B, C, D, and E, but the inhabitants of Clydesdale require also the produce of the fields F, so that the one is under the necessity of giving at an average one shilling per boll more for meal than the other.

"Let us now suppose that the gentlemen of Clydesdale, from an extraordinary exertion of patriotism, and an inordinate desire to encourage manufactures, should resolve to lower their rents, so as to demand nothing from those who possessed the fields E, as well as those of the class F, and should allow the rents of all the others to sink in proportion. Would the price of grain fall in consequence of this? By no means. The inhabitants are still in need of the whole produce of the fields F as before, and are under the necessity of paying the farmer of these fields such a price as to enable him to cultivate them. He must, therefore, still receive 14s. per boll as formerly, and as the grain from the fields E, D, C, B, and A are at least equally good, the occupiers of each of these fields would receive the same price for their produce. The only consequence, then, that would result from this Quixotic scheme, would be the enriching one class of farmers at the expense of the proprietors, without producing the smallest benefit to the consumers of grain, perhaps the reverse, as the industry of these farmers might be slackened by these measures.

"If, on the other hand, by any political arrangement the price of oatmeal should be reduced from 14s. to 13s. per boll, it would necessarily follow that all the fields of the class F would be abandoned by the plough, and the rents of the others would fall of course, but with that fall of rent the quantity of grain produced would be diminished, and the inhabitants would be reduced to the necessity of depending on others for their daily bread. Thus it appears that the rents are not at all arbitrary, but depend on the market price of grain, which in its turn depends upon the effective demand there is for it, and the fertility of the soil in the district where it is raised, so that the lowering of rents alone could never have the effect of rendering grain cheaper."

This passage is remarkable as being the first elaborate attempt to explain the theory of rent, but it is manifestly defective because it assumes the necessity of there being different degrees of fertility in the soil of the country. This supposition is entirely superfluous, because rent would arise, even though all the soil was of exactly the same fertility. Ricardo greatly extended it afterwards, by shewing that there were other circumstances which were equivalent to differences of degrees of fertility. But the great merit of this passage is the final and conclusive answer it gives to the popular notion, that if landlords went without their rents, corn would be any the cheaper. It is not possible to demonstrate this in a more conclusive manner than is done in the preceding passage, and it is of great service in Political Economy, but this and a few other passages are the only ones of any value in this pamphlet.

Although the country owes much to Anderson

for his services in favor of agriculture, his speculative notions were founded on the exploded fallacy, that it is necessary or advantageous for a country to be independent of all foreign nations for a supply of food. It was exactly the same idea that was at the root of the Protective System, which was abolished in 1846, only that system was based on the method of a sliding scale of import duties; Anderson's was a sliding scale of bounties on exportation. Both had the same object in view, to secure the farmer such an average price of corn as would encourage a sufficient supply to be grown at home so as to be independent of foreigners. This fallacy is now exploded, because it is now well known that it is much more advantageous for a country to purchase its corn from foreigners by means of its manufactures, than to pay an enormous tax to home producers. That foreigners will refuse to sell, is a mere bugbear that all experience disproves. Buyers and sellers come together with an electric force that nothing can resist. In fact, producers have the same necessity to sell, which consumers have to buy. The fallacy which pervades Anderson's and the protective system is the identical one which beguiled Adam Smith on the subject of the Navigation laws, which have recently been repealed with such excellent results. The Board of Northern Fisheries was instituted on Anderson's principles, but the fallacy of the bounty on herrings being clearly shewn, it was long ago repealed, and the Board's duties are now confined to dispose of an annual grant of £3,000 a year for the extension and improvement of harbours for the fishermen on the coast of Scotland.

Anderson's other works relating to Economical subjects are as follows:—

Observations on the means of exciting a spirit of National Industry. Edinburgh, 1777.

An Enquiry into the nature of the Corn Laws. Edinburgh, 1777.

Essays relating to Agriculture and Rural affairs. Edinburgh, 1777. Fifth edition 1800.

An Enquiry into the causes which have hitherto retarded the advancement of Agriculture in Europe. 1779.

The true interest of Great Britain considered: or a proposal for establishing the Northern British Fisheries. 1783.

An Account of the present state of the Hebrides, and Western Coast of Scotland, being the substance of a Report to the Lords of the Treasury. 1785.

Observations on Slavery, particularly with a view to its effects on the British Colonies in the West Indies. 1789.

Observations on the effects of the Coal Duty. 1792.

Thoughts on the privileges and powers of Juries, with observations on the state of the country with regard to Credit. 1793.

Remarks on the Poor Laws of Scotland. 1793.

A practical Treatise on Peat Moss. 1794.

A general view of the agriculture and rural economy of the county of Aberdeen, and the means of its improvement. 1794.

A practical treatise on draining bogs and swampy grounds, with cursory remarks on the originality of Elkington's mode of draining lands. 1797.

Recreations in Agriculture, &c. 1790,—1802.

A calm investigation of the circumstances that have led to the present scarcity of grain in Great Britain, suggesting the means of alleviating that evil, and of preventing the occurrence of such a calamity in future. 1801.

ANGEVILLE, COUNT ADOLPHE D'—Born at Lampries (Ain), 20th May, 1796; formerly in the Navy, and deputy for the Ain.

Aperçu sur nos Colonies et notre Marine Militaire pour appuyer une pétition faite à la Chambre le 24me Janvier, 1832. Lyon, 1832.

Essai sur la Statistique de la population Française, considérée sous quelques uns de ses rapports physiques et moraux. Paris, 1836.

ANISSON DU PERON, ETIENNE ALEX-ANDRE JACQUES—Born 1748, and appointed, in 1783, Director of the Royal Printing Office. In 1790 he published a letter on the printing of assignats, and the different species of paper tried in their fabrication. On the 4th July, 1792, he was indicted for printing an unconstitutional decree. After the 10th August he was obliged to resign his office, and he was sent before the revolutionary tribunal and condemned to death 25th April, 1794.

ANISSON DU PERON,—Son of the preceding, was born at Paris, 26th October, 1776—was appointed auditor of the Council of State in 1806, and director of the Imperial Printing Office in 1809—Deputy from Puy de Dome in 1830—President of the Council-General of that department in 1840, and a Peer of France in 1844. He was one of the founders and vice-president of the Society for the Promotion of Free Trade.

De l'affranchissement du commerce et de l'industrie. Paris, 1829.

De l'enquête sur les fers, ou application des principes généraux à la question de la taxe sur les fers étrangers. Paris, 1829.

Examen de l'enquête commerciale sur les sucres en 1829, précédé de l'examen de l'enquête sur les fers. Paris, 1829.

Traité de Melhuen et de 1786 dans leurs rapports avec la liberté commerciale. In the *Journal des Economistes*. Vol. XXVII.

ANNALI UNIVERSALI DI STATISTICA—Edited by Francesco Lampato and a variety of Economists. The first series, forming 80 vols., ended in June, 1844. The second series, beginning July, 1844, ceased at the end of 1850. Milan.

ANNUAIRE de l'ECONOMIE POLITIQUE et de la Statistique. Edited by Messrs. Joseph Garnier and Guillaumin.—Paris. This series began in 1844. Each volume is divided into four parts. The first gives the substance of official reports relating to the population, the public finances, trade, the administration of justice, savings' banks, banks, charitable institutions, &c., of France. The second part is allotted to the City of Paris. The third gives similar information respecting foreign countries. The fourth gives general discussions on the most interesting questions of the day in Political Economy; a review of the proceedings of the Academy of Moral and Political Sciences; the principal Economical events of the year; a financial review and a biblio-

graphy of the preceding year. This publication contains, in a small compass, a great amount of valuable information.

ANNUAIRE DU BUREAU DES LONGITUDES.—This periodical contains many papers upon Economical subjects.

ANNUITIES.—An Annuity is a series of payments made at stated intervals, usually a year, whence the name, but very often more frequently, as half-yearly, quarterly, &c.

1. Next to a true conception of the nature of *Value*, which is the fundamental idea in Political Economy, the doctrine of Annuities is probably the most important. The subject of Annuities, viewed in its proper extent, comprehends incomparably the largest amount of existing property, and the most important material interests of mankind in a state of civilization. They are the fruits of civilization itself, and some of its most remarkable discoveries—Money and Interest.

2. The importance of the subject of Annuities may be seen when we state that, in addition to the subjects with which its name is more popularly associated, it in reality comprehends the whole theory of the value of landed property, the public funds, and all other subjects which produce an annual revenue, and the whole of Commercial Credit. In fact, we may say, that in its most comprehensive sense the doctrine of Annuities is the theory of the value of Fixed Capital. (CAPITAL.)

3. The doctrine of Annuities is the produce of that wonderful instrument Money (MONEY), and is a curious commentary upon the arguments of Aristotle and Dante to show that interest is unnatural and abominable. (ARISTOTLE. DANTE.) The theory of Annuities entirely depends upon the principle that money *naturally* produces interest, but more particularly upon the principle that interest produces interest, an idea that drove Plutarch almost beside himself. (PLUTARCH.)

4. An annuity, as we have said above, is a series of future payments, from whatever source arising, and the doctrine of annuities rests entirely upon this principle, that each of these future payments has a present value, and that all, or any, or any number of them, may be bought and sold, like an article of commerce. And the theory of annuities has for its object to discover the present value of each of these separate terms, and in a large branch of the subject to discover how many of them should be bought according to the circumstances of the particular problem.

5. The present value of an annuity is, therefore, the sum of the series of the present values of all the future terms. Now, let us take the case of a perpetual annuity, or a payment to be made at regular intervals for ever. If money bore *no* interest, it is clear that each future payment would be exactly equal to the present payment, consequently the present value of such an annuity would be the same as the aggregate sums to be paid for ever. That is, to purchase such an annuity, it would be necessary to pay down an infinite sum. A consequence which is manifestly absurd. Hence it appears that such a mode of calculating the value is manifestly erroneous.

6. Again let us suppose that simple interest is charged. Then each future payment would be

diminished by a small definite sum of uniform amount. And it is evident that to buy an annuity for ever, on such terms, would involve exactly the same absurdity as in the preceding case. That is, to secure a finite annual payment, we should have to pay down an infinite sum of money, which shews that this mode of calculation is also manifestly erroneous.

7. But if we suppose that *compound* interest is charged, we shall find that each term of the series will progressively and rapidly diminish. A larger quantity will have to be subtracted from each term in succession. We shall thus obtain a series of quantities in geometrical progression, the common difference being a fraction, and by the laws of Algebra, we know that such a series, even though it be infinite, has a finite limit. And that finite limit is the present value of the perpetual annuity.

8. Hence we see that the value of annuities *must* always be calculated at compound interest, in order to obtain a rational result. The present value of each term or future payment, is such a sum of money as improved at the given rate at compound interest, would amount to that sum in the given time. And the present value of the whole annuity is the sum of the series of the present values of each term.

9. An annuity, however, does not consist of any definite number of terms. It may be of any number, from a single future payment up to an infinite number, or any intermediate number. And under each species an enormous amount of property is to be classed. We shall shortly consider the different varieties of annuities, and the species of property they relate to.

10. I.—*The lowest form of an Annuity, i.e. a single future payment.*

This comprehends the whole theory of mercantile credit (CREDIT), which consists simply of a single future payment, and these future payments, under the form of bills of exchange, form an immense article of commerce. To buy a bill of exchange is usually called to *discount* it, and there is a most important class of traders whose chief business consists in buying bills of exchange or commercial debts. (BANK. BILL BROKER.) The main business of banking consists in buying or discounting bills of exchange. Now there is no difference whatever in principle between discounting a bill of exchange and buying a landed estate. To discount a bill is to buy a single future payment, to buy a landed estate is to discount a series of future payments.

11. II.—*The largest form of an Annuity, i.e. a series of future payments for ever.*

This comprehends the whole theory of the value of estates in fee simple, and that portion of the public funds which consists of perpetual annuities. To purchase a landed estate in fee simple is merely to discount a series of future payments for ever, as already explained. The same may be said of the purchase of all property which yields an annual revenue, such as canals, railways, the public funds, &c.

12. III.—*The intermediate form, i.e. a limited series, but exceeding one, of future payments.*

This variety is much the most complicated, and includes a great number of sub-varieties, the calculation of which involves a considerable portion of the theory of probabilities (PROBABILITIES). It

includes the theory of the value of leases, fines on the renewal of leases, estates in remainder or reversion, vested and contingent, and life and survivorship annuities of all sorts. To enter into a full detail of the methods requisite to find the value of all these various annuities would require an immense amount of mathematical detail, which is wholly beyond the purpose of this work, and for which we must refer to the standard treatises enumerated at the end of this article. All we can do here is to specify very briefly the different classes that may be formed, and the species of property which is included in them. We may have then—

1. *A series to commence immediately and terminate at a given time.*

(a) *And of this the termination may be certain.*

Under this form are included all leases for a certain number of years, and all annuities for a fixed number of years.

(b) *Or the termination may be uncertain.*

Under this form are all life annuities commencing immediately.

(b 1) *And this termination may depend upon a single uncertain event, or (b 2) upon several uncertain events.*

Thus, an annuity may be granted to continue during the life of a single individual, or during the life of the survivor of several individuals.

2. *A series to begin at a future period, and to continue for ever.*

(a) *And of this the commencement may be certain and definite.*

Thus, an estate may be sold to B, subject to a lease to A.

(b) *Or the commencement may be certain but indefinite.*

Thus, an estate may be settled on A for life with remainder to B in fee.

(c) *Or the commencement may be uncertain and indefinite.*

Thus, an estate may be settled on A and his heirs, whom failing, remainder to B and his heirs.

Or an estate may be settled on A for life, and if C be living at his decease, then to B and his heirs.

Or an estate may be granted to A until he be bankrupt, or insolvent, or innumerable other contingencies, and then to B and his heirs. To this form belongs the whole theory of estates in reversion, or remainder, vested or contingent, executory interests, springing or shifting uses, and executory devises, a subject of immense importance.

3. *A series to begin at a future time and to continue a limited number of years.*

(a) *Of this form the commencement and termination may both be certain and definite.*

Of this the fine paid for the renewal of an unexpired lease is an example.

(a 1.) *Or the commencement may be certain and definite and the end certain but indefinite.*

Thus, an estate may be granted to A and his heirs for 10 years, and then to B for life.

Or A may purchase an annuity for life to commence at the end of a given term.

(a 2.) *Or the commencement may be certain and definite and the end may be uncertain and indefinite.*

Thus, an estate may be granted to A for 10 years, then to B until some contingent event happens, as for instance until he marries, and then to C.

Or a husband may bequeath his widow an estate so long as she remains unmarried.

(a 3.) *Or the commencement may be certain but indefinite, and the end certain and definite.*

Thus, an annuity for seventy years may be granted to B and his heirs, to commence on the death of A.

(a 4.) *Or the commencement may be uncertain and indefinite, and the termination certain and definite.*

Thus, an estate or an annuity for a term of years may be settled on B contingent on A marrying or having a son, &c.

(a 5.) *Or the commencement may be uncertain and indefinite, and the termination certain but indefinite.*

Thus, a grant may be made to thirty different living people in succession, separately, for their lives;

Or a survivorship annuity may be effected by a husband in favor of his wife.

(a 6.) *Or the commencement and termination may both be uncertain and indefinite.*

Thus, an estate may be granted to A until some contingency, such as marriage, bankruptcy, birth of a son; then to B until some contingency occurs; then to C, and so on.

These are but very simple examples of the variety of forms which different estates or interests in property may assume. But to one or other of them the calculation of the value of all estates may be reduced. The entirety of course can only be equal to the sum of each separate interest, however numerous or complicated they may be. And when we further consider that the commencement and termination of each separate interest may be made to depend not only on a single contingency, but on any number of contingencies, it manifestly involves the whole theory of Probabilities, one of the most subtle of scientific subjects. Thus, the calculation of the value of a single interest in some given property may call forth the highest powers of mathematical skill and analysis, so much so, indeed, that mathematicians of the highest eminence have frequently been at fault in their endeavours on the subject. But to one or other of these forms, the infinite variety of ways which human caprice may dictate or suggest the disposition of property, may be reduced; and the subject is very far from being exhausted yet. The tables of mortality from which the probability or expectations of life are framed, are extremely imperfect. Nor can we expect that any results will be obtained at all commensurate with the scientific exactness which is demanded at the present day, until the experience of numerous offices has been tabulated and recorded for a very much longer series of years than has yet been done. If any one doubts the extreme imperfection of the science of calculation of the value of Annuities, let him propose, as we have done, a simple question in survivorship annuities, to a number of the principal offices, and he will be astonished at the difference of the answers he will receive, as much perhaps as fifty per cent. Nor are the enormous bonuses which most of the older offices add to their policies, any thing more than evidence of inaccurate calculation of the true premium necessary to be paid to secure a given amount.

De Witt upon Annuities, 1671.

An Estimate of the Degrees of Mortality of Mankind, drawn from curious tables of the births and funerals at the City of Breslaw, with an attempt to ascertain the price of Annuities on lives. By Mr. E. Halley. Philosophical Transactions, vol. 17, p. 596. 1693.

On Annuities for Lives. By Abraham Demoivre. 1724.

A Letter from Mr. Abraham Demoivre to William Jones, Esq., concerning the current method for calculating the Values of Annuities upon Lives, from Tables of Observation. Phil. Trans. vol. 43, p. 65. 1744.

Doctrine of Annuities and Reversions. By Thomas Simpson. 1742.

Essai sur la probabilité de la durée de la vie humaine. Deparcieux. 1746.

A Letter to the Earl of Mansfield, P.R.S., concerning the value of an Annuity for Life, and the probability of Survivorship. By Mr. James Dodson. Phil. Trans., vol. 48, p. 487.

A Letter concerning the term and period of Human Life, &c. By T. W. Phil. Trans. vol. 52, p. 46.

Observations on the Expectations of Life, the increase of Mankind, &c. By Dr. Price. Phil. Trans., vol. 59, p. 89.

Short and easy Theorems for finding Annuities, in all cases, the differences between the values payable yearly, and the same Annuities payable half yearly, quarterly, or monthly. By Dr. Price. Phil. Trans., vol. 56, p. 109.

Observations on Reversionary Payments. By Dr. Price. 1776.

Doctrines of Annuities and Assurances. By William Morgan. 1779.

Calcul des Rentes viagères sur une et sur plusieurs têtes. By Saint Cyran. 1779.

Principles of the Doctrine of Life Annuities. By Francis Maseres, Cursitor Baron, London, 1783.

On the Method of determining from the real probabilities of life, the Values of Contingent Reversions, in which three lives are involved in the Survivorship. By William Morgan. Phil. Trans., vol. 84, p. 223. 1794.

Doctrine of Life Assurances and Annuities. Francis Baily. London, 1810.

A Treatise on the Valuation of Annuities and Assurances of Lives and Survivorships; on the Construction of Tables of Mortality; and the Probability and the Expectations of Life. By Joshua Milne. London, 1815.

On the Principles and Doctrine of Assurances, Annuities on Lives, and Contingent Reversions. By William Morgan. London, 1821.

A Sketch of an Analysis and Notation applicable to the estimation of the value of Life Contingencies. By Benjamin Gompertz. Phil. Trans., vol. 110, p. 214.

Coup-d'œil sur les Assurances sur la Vie des Hommes. By M. Juvigny. Paris, 1825.

Tables of Life Contingencies. By Davies. London, 1826.

A Comparative View of the various Institutions for the Assurance of Lives. By Charles Babbage. London, 1820.

Lettre a M. Outrequin, banquier, sur les assurances qui ont pour base la probabilité de la durée de la vie humaine. By J. N. Nicolle. Paris, 1828.

Traité des assurances terrestres et de l'assurance

sur la vie des hommes, suivi d'un appendice renfermant les statuts des principales compagnies Françaises d'assurance, et les polices des principales compagnies Françaises et étrangères. By MM. Grün and Joliat. Paris, 1828.

On the Calculation of Annuities, and on some Questions on the theory of Chances, and on the comparison of various Tables of Annuities. Transactions of Camb. Phil. Society. By Lubbock. Vol. 3, Part 1. 1829-30.

On the Evidence and Elementary Facts on which Tables of Life Annuities are calculated. By Mr. Finlaison. Ordered by the House of Commons to be printed. 1829.

Life Tables founded upon the discovery of a numerical Law regulating the existence of every Human Being. Illustrated by a new theory of the causes producing Health and Longevity. By T. R. Edmonds. London, 1832.

A series of Tables of Annuities and Assurances calculated from a new rate of Mortality among assured lives. By Jenkin Jones. London, 1843.

Traité générale des assurances, assurances maritimes, terrestres, mutuels, et sur la vie. By Isidore Alauzet. Paris, 1844.

Society for the Diffusion of Useful Knowledge. *A Treatise on Life Annuities, &c.* By David Jones. London, 1844.

Also Articles on Annuities in the various Encyclopædias. (INSURANCE.)

ANQUETIL DUPERRON. **ABRAHAM HYACINTHE**—One of the most distinguished scholars of the 18th century, was born at Paris 7th December, 1731, and educated there; he was intended for the church, but having no taste for an ecclesiastical life he devoted himself to the study of oriental languages, in which he acquired an extraordinary proficiency. So ardent was he in pursuit of this, that being unable to obtain a passage in a ship going to the East Indies, he enlisted as a private soldier in an expedition that was fitting out at L'Orient for that country. The minister hearing of his extraordinary love for his pursuit ordered him a free passage. After undergoing extraordinary difficulties, he made his way to Surat, where he found the remnants of the Parsees, whose language and religion were the principal objects of his search. He came home in an English ship, and reached Paris 4th May, 1762, with 180 MSS. almost entirely Zend, and he presented 18 to the Royal library, containing all the extant works of Zoroaster. In 1763 he was elected a member of the Academy of Belles Lettres. In 1771 he published, in 3 vols. quarto, his translation of the Zendavesta, for the manuscript of which he had refused £30,000 in England. He died 17th January, 1805. This distinguished man published many other works, amongst which those relating to economical subjects are—

De la dignité du commerce et de l'état du commerçant. Paris, 1789.

L'Inde en rapport avec l'Europe. Hamburgh, 1798.

ANSELL, CHARLES, F.R.S.
A Treatise on Friendly Societies. London, 1835.

ANTHOINE, ANTOINE IGNACE—Baron de St. Joseph, was born at Embrun, 21st September, 1749. He very early manifested a strong

bent for commercial affairs. He entered a mercantile house at Marseilles, and he was soon sent to superintend a branch of the establishment at Constantinople, which he conducted with great success. His *Memoirs on Commerce* were highly esteemed at the French court, and he was sent to examine Russia and Poland, with a view to extend French commerce in those countries. He was very favourably received by Catherine II. and Stanislaus, King of Poland. Catherine authorised him to found the commercial port of Cherson. In 1786 Louis XVI. ennobled him in very flattering terms. He then finally settled at Marseilles, and became one of the principal persons in the place, and did much good during the famine in 1790. Notwithstanding this he was exiled in 1793, and went to reside at Genoa, but returned as soon as the revolutionary violence was over. He was elected a member of the Council General of Commerce, of the Corps Legislatif, and then of the Conservative Senate, and was Mayor of Marseilles in 1805, where he effected great improvements and embellishments of all sorts. He died there 22nd July, 1826. In the hundred days he was a member of the chamber of representatives. He published,

Essai historique sur le commerce et la navigation de la Mer Noire. Paris, 1805.

ANZANO, THOMAS.

Reflexiones economico politicas sobre las causas de las alteraciones de precios que ha padecido Aragon y discursos sobre los medios que pueden facilitar la restauracion de Aragon. Zaragoza, 1768.

Blanqui commends this work.

APPLETON, NATHAN—

Remarks on Currency and Banking, having reference to the present derangement of the circulating medium in the United States. Boston, 1841. An excellent pamphlet.

ARBITRATION of the Exchanges. See EXCHANGE.

ARBUTHNOT, G.—Was private secretary to Sir Robert Peel, and to Sir Charles Wood.

Sir Robert Peel's Act of 1844, regulating the issue of Bank Notes vindicated. London, 1857.

This pamphlet is written in a fluent style, but unfortunately the author has never made himself acquainted with the ordinary mechanism of banking. At page 12 he treats the £38,000,000 of deposits in the various London Joint Stock Banks at that period, as *bond fide* cash deposited by the public. This is the touchstone of any man's real knowledge of banking. The delusion is almost universal, but it is as profound a delusion as the balance of trade. (BANK.)

ARBUTHNOT, JOHN, M.D., F.R.S.—Born in 1675, at Arbuthnot, near Montrose. He was educated at Aberdeen. He was one of the most celebrated wits and physicians in the reign of Queen Anne. His father, an episcopal clergyman, lost his preferment at the Revolution, and young Arbuthnot came to England, and settled at Doncaster for some time. Meeting with no employment there, he came to London, where his manners, learning, and wit soon acquired him the

friendship of the most celebrated literary men of the time, Pope, Swift, Gay, Parnell, Harley, Bolingbroke, and others. A fortunate accident brought him to the notice of Queen Anne, who appointed him physician to the court. He was equally distinguished for his scientific attainments as for his incomparable wit, and what does not always accompany such a quality, his goodness of heart. He was the author of several political satires. He died in February, 1735. His treatise on an economical subject is his—

Table of ancient coins, weights, and measures, explained and exemplified in several dissertations. London, 1727. Second edition, with an appendix by Dr. Benjamin Langwith, 1754.

A very valuable work, containing a great deal of information on the prices of all sorts of things in ancient times.

ARC, PHILIP AUGUSTE de Ste. FOIX, D'—Natural son of a Count of Toulouse, died in 1779, at Tulle, leaving, among numerous other works,—

Histoire du Commerce et de la Navigation des Anciens et des Modernes. Two vols. only printed. Paris, 1758.

La Noblesse Militaire opposée à la Noblesse Commercante.

Le Palais du Silence, conte philosophique, avec une dissertation historique et critique sur l'établissement des colonies de la Grèce, dans l'Asie Mineure. Translated from the Greek of Cadmus of Miletus. Amsterdam, (Paris,) 1744.

ARCERE, LOUIS ETIENNE.—Born at Marseilles, in 1698. A priest of the Oratory. In 1743 he became perpetual secretary of the Royal Society of Agriculture of Rochelle, and Superior of his order. Having, in conjunction with a friend who died in the course of the work, published a History of Rochelle, he obtained a pension, and was appointed a correspondent of the Academy of Inscriptions and Belles Lettres. He died 7th February, 1782. He also published—

L'Etat de l'Agriculture des Romains depuis le commencement de la République jusqu'au siècle de J. César. Paris, 1777.

Mémoire sur la nécessité de diminuer le nombre des Fêtes. 1763.

ARCO, GIAMBATTISTA GHERARDO, D'—Born at Arco, in the Tyrol, in 1739. He studied at Mantua, Parma, where he became acquainted with Condillac, and at Verona. Returning to Mantua he became a member of the Academy of Sciences, founded by Maria Theresa. The Academy having proposed as a prize subject in 1771, "The equilibrium which ought to be established between the industry of the town and the country with regard to their respective interests and wants," Arco wrote a dissertation "On the Politico-Economical harmony between a City and its territory," which gained the prize, and much public reputation. He published many other works on Political Economy, in which he unreservedly adopted free trade opinions. Joseph II appointed him governor of the Duchy of Mantua, where he greatly distinguished himself by his good administration. He founded a school of Agriculture for orphans, and expended great sums in charity to the distressed workmen, in the

severe winter of 1782. He died in 1791, having resigned his office some years previously. His dissertations on Political Economy are—

Dell' Armonia Politico-Economica trà la città e il suo territorio.—Del diritto ai transiti.—Dell' influenza del commercio sopra i talenti e su i costumi.—Dell' influenza dello spirito di commercio sull' economia interna dei popoli, e sulla prosperità degli Stati.—Dell' Annona.—Dell' influenza del Ghetto nello Stato.

ARGELATI, FILIPPO.—One of the most eminent literary men of his time, was born at Bologna, in 1685, a member of one of the most ancient families of the city. After studying there, he went to Florence, and became acquainted with the most remarkable persons there, especially the celebrated Magliabecchi. He devoted much time and labor to promote the publication of the works of literary and scientific men, amongst others, Ulysses Aldovrandi, the naturalist. The principal one, however, which he was the means of presenting to the world, was Muratori's *Rerum Italicarum Scriptores*. Hearing that Muratori found it impossible to bring his great work out, because there was no press in Italy which could execute it, Argelati found that Milan was the only place where it could be effected. Having gone there, he formed an association of Milanese gentlemen, who each subscribed a considerable sum, and by this means a suitable printing-office was established, where many other magnificent works were published besides Muratori. Argelati died 5th January, 1755. His own writings on Economics are—

De monetis Italia variorum dissertationes collectæ, recensitæ, et auctæ. Milan, 1750.

Nummorum series tam auri quam argenti et æris qui in officinâ monetariâ Mediolanensi cusi fuere, ab anno 1348 ad 1750.

ARISTOPHANES.—Born about 456 B.C., died about 380 B.C. We may quote a remarkable passage from the *Frogs*, which contains the earliest notice, that we are aware of, of an economical phenomenon of fundamental importance,—*That good and bad coin cannot circulate together, but the bad coin will drive out the good.* During the extreme distress caused by the Peloponnesian war, Athens had, for the first time, issued a debased gold coinage, the consequence was that the good money immediately disappeared from circulation. Aristophanes, *Frogs*, 665, says, "The State has very often appeared to us to be placed in the same position towards the good and noble citizens, as it is with regard to the old currency and the new gold. For we make no use at all, either at home or abroad, of those which are not adulterated, but the most beautiful of all money, as it would seem, which are alone well coined and ring properly, but of this base copper, struck only yesterday, and recently, of a most villainous stamp. And such of the citizens as we know to be well born and prudent, and honorable gentlemen, and educated in the palaestra, and chorus, and liberal knowledge, we insult. But the impudent and foreigners, and the base born, and the rascals, and the sons of rascals, and those most recently come, we employ."

This phenomenon, which has been observed in countless instances in all ages and countries, was

long the puzzle of statesmen and financiers. Sir Thomas Gresham was the earliest person, that we are aware of, who discovered the connection between the fact of the circulation of bad money and the disappearance of the good. We have therefore called it Gresham's Law of the Currency. (GRESHAM.) It is one of the fundamental laws of Political Economy.

ARISTOTLE.—Whom, if we are to judge by the unexampled influence he has maintained over the opinions of mankind, we must pronounce the most distinguished person that ever lived, was the founder of the Science of Political Economy. He was born B.C. 384, in Chalcidice, at Stagirus, on the Strymonic Gulf, on the margin of the Ægean Sea, illustrious as the cradle of all European literature. His father Nicomachus, one of the *Æscapiada*, hereditary professors of medicine, was the physician and friend of Amyntas, king of Macedon. He was also distinguished as a voluminous writer on Medicine, Physiology, and Natural History, and these studies exercised much influence over the mind of his son. Nicomachus died while his son was a minor, and left him under the guardianship of Proxenus of Atarneus, who discharged his office with greater fidelity than such persons generally do, and Aristotle always regarded him with the warmest affection to the end of his life. At seventeen he came to Athens, the centre of the civilized world, when Plato was at the height of his reputation. That great teacher had just left on his journey to Sicily, where he staid three years, and Aristotle devoted himself to study, during that period, to qualify himself to attend his lectures with due profit on his return. Aristotle remained at Athens for a period of twenty years, and amassed during that time those unexampled stores of knowledge which have rendered his name immortal. He was by far the most distinguished pupil of Plato, who called him "the soul of his school." During the last ten years he himself gave lectures on Rhetoric and Politics, and gathered round him a circle of scholars.

At the period of Plato's death, Philip of Macedon had commenced that career of encroachment which aroused all that was patriotic at Athens to resist him. He captured many of the Greek cities in Chalcidice, amongst others Stagirus, which was destroyed, and the inhabitants sold as slaves. Aristotle, as a person who enjoyed his confidence and friendship, was sent on an embassy to him which had not much success. Himself a foreigner, and the friend of the Macedonian King, Aristotle probably found himself an object of suspicion and jealousy to the Athenians, and found it convenient to retire for a while from that city. He went to reside at the Court of Hermias, tyrant of Atarneus in Mysia, who had been one of his scholars at Athens. The predecessor of Hermias had taken the opportunity of throwing off the yoke of Persia, when that power was engaged with an insurrection in Egypt. As soon as the Great King had suppressed that revolt, he sent to chastise the rebellious cities in Asia Minor. Hermias was defeated, and Atarneus captured. Aristotle succeeded in escaping to Mitylene, along with Pythias, the sister of Hermias, whom he married. After being there two years he received an invitation from Philip of Macedon, to superintend the education of his son Alexander, who was then thir-

teen years of age. This invitation he accepted B.C. 342, and he staid in Macedonia seven years, four of which were occupied in the education of his pupil. He had a pleasing opportunity of showing his love for his birthplace, for Plutarch says that he demanded, as the price of his instructions, the rebuilding of Stagirus. This request was complied with. The citizens who were in exile were recalled, and those in captivity were redeemed. Philip prepared a grove for the studies and literary conversations of the philosopher, and in Plutarch's time, the stone seats and shady walks frequented by him were still shewn, and the grateful citizens instituted a festival in his memory.

When Alexander set out on his eastern expedition, Aristotle did not accompany him, but sent with him his nephew Callisthenes, an honest, but rough and imprudent man, who did not know how to accommodate himself to the position he was placed in. Aristotle himself returned to Athens, after an absence of twelve years. The successors of Plato held the Academy, so Aristotle opened his school at the Lycæum, near the temple and grove of Apollo Lyceus. He was of feeble health, so he delivered his lectures walking up and down the shady paths (*περίπατος*), whence his followers were called *Peripatetics*. Here he remained thirteen years, and during that time the greater part of his works were composed. During this time, we may believe that he attained the summit of human felicity, if ever any man did. The Macedonian party was uppermost at Athens, and the philosopher, with stainless name, attended by crowds of admiring disciples, enjoyed everything that wealth or fame could give. Alexander is said to have given him 800 talents, or £200,000, and put several thousands of men at his command in all quarters of his empire, to procure materials for his Natural History, which was written at his request. For these thirteen years Aristotle reigned without a rival. But during the latter part of it, the friendship between him and his pupil sustained some diminution, in consequence of the imprudence of Callisthenes, who could never tame down his rough honesty to the level of the servile adorners of the conqueror, and at last provoked his own destruction.

When the astounding news of the death of Alexander was spread through Greece, the popular party made a last vain effort for Pan-Hellenic independence. Inspired by the burning eloquence of Demosthenes, Greece fought its last fight for liberty, and, under the command of Leosthenes, a transient gleam of success crowned their arms. The anti-Macedonian party prevailed for a short time, and evil days fell upon the Philosopher. The leaders of the fallen party were, as usual, proscribed. The immaculate character of Aristotle gave no hold for the calumnies of politicians, but some flagitious wretches instituted a prosecution against him for blasphemy, for having, as they said, paid more than mortal honors to the memory of Hermias and Pythias. The Philosopher, then in the decline of life, and broken in health, saying to his friends, "Let us leave Athens, and not give the Athenians a second opportunity to commit sacrilege against philosophy," abandoned the scene of his glory, and removed with his property to Chalcis, in Eubœa, where some of his relatives lived, and his political friends were in power. Safe from the malignity of his enemies, all they could do was to

wreak their vengeance on him, by the harmless insult of repealing a former vote of the people in his honour, and condemning him to death in his absence. But a more powerful enemy than the Athenians had him in his grasp. A long-standing disease of the intestines carried him off in his sixty-second year, in August, B.C. 322, and two months later, the last scene of free Greece being played out, his immortal opponent Demosthenes, was added another illustrious victim to the Martyrology of faction. Thus, in the space of little more than twelve months, three of the most transcendent intellects the world ever saw, were extinguished.

This eminent philosopher, who combined within himself, digested, and systematized all the learning and science of his time, was the true founder of Social Philosophy. His entire works are said by Diogenes Laertius to have exceeded 450,000 lines, but the only ones, of course, we can notice, are those which relate to our present subject. And it is greatly to be lamented, that they have come down to us in an incomplete and fragmentary form, if indeed they are anything more than abstracts of his lectures. The *Politics* is incomplete, and critics unanimously pronounce the second book of *Economics*, which is printed with his works, to be spurious, and many attribute the first book to Theophrastus. And it is even said that the original text of the three last chapters of the first book, and all the second, is lost, and were translated into Greek by Aretinus, from a Latin version. Diogenes Laertius only mentions one book of *Economics*, but others mention two. No one has mentioned any one else to whom they ought to be assigned. And we may perhaps fairly consider them to be either by some scholar of Aristotle who took notes of his master's lectures, or they may be a sketch, or common place book of Aristotle's own, containing examples which he collected for his use when he should complete his treatise at some future period. The draught of the *Politics* was not finished at his death, and the second book of the *Economics*, after the first chapter, is merely an unconnected collection of instances in which a variety of persons, and states of all sorts, tyrannical, constitutional, and republican, provided themselves with money on certain occasions. Very similar cases are brought forward in the *Politics*, I. c. xi. So that it appears quite possible that they might have been materials which Aristotle collected, to be used in his regular treatise, as might seem advisable. Be that as it may, however, the work is interesting as it is the first that contains the name of POLITICAL ECONOMY, and in his Treatises on Social Philosophy are contained the foundations of all modern systems of Political Economy, both those which take the widest, and those which take the narrowest view of the objects and limits of the science.

We shall endeavour to trace briefly a general outline of his ideas on the subject of *Politics*, *Economics*, and Political Economy, though it is not always easy to follow him, because he is not always uniform and consistent with himself in the use of these terms, and they are often so mixed up together, as not to be easy to render a clear definition which shall always be accurate. The following will, we hope, be found sufficiently correct.

Aristotle considers social philosophy or political

science, in its most general sense, to be the "chief and most excellent of all." (*Pol. I.*, 1.) and to be "the chief, and especially the master science," (*Nicomach. Ethics*, I., 2.) and in its most comprehensive sense to include three divisions: *Ethics*, which treat of the regulation of the individual man; *Economics*, which treat of the regulation and management of families; and *Politics*, which treat of the regulation of the society of families, or the state. The word *politics*, then, he uses sometimes in the extensive sense of including the other two, and sometimes in the narrower one of excluding them.

Again, the word *Economy*, in its original and most comprehensive sense, includes everything which relates to the regulation and good of the family or household. And this clearly includes two separate branches, 1st, the ruling or governing the household, and 2nd, providing for its maintenance. But the acquisition of subsistence is manifestly the first requisite towards ruling it. "Some, therefore," he says, "identify the acquisition of subsistence with economy, while others consider it as the chief part of it, I mean the acquisition of wealth." (*Pol. I.*, 3.)

He then says that the household consists of freemen and slaves, and having discussed the different methods of ruling a household he treats of slaves, and as slaves are a portion of property, he then inquires into the nature of property in general. (*Pol. I.*, 8.) And again, he says, "some may question whether the acquisition of wealth is the same thing as economics, or whether it is part of it, or something subservient to it, and if so, in what manner." "It is evident, however," he says "that economics is not the same as the art of getting wealth; for it is the business of the latter to acquire it, and of the former to use it. For what art is there to use what is in the house, besides economics? But yet it is doubtful whether the getting of wealth is part of economics, or another kind of thing." In Chapter 10 he still further goes on, and says, "it is clear whether getting wealth is part of economics or politics, for as politics does not make men, but takes them from nature, and uses them as she finds them, so ought nature, whether it be the earth, or the sea, or anything else, to supply them with provisions, and it is the business of the master of the house (economist) to manage them properly; for it is not the weaver's business to make the wool, but to use it, and to distinguish what is good and useful from is what is bad and useless."

From this principal idea of economics being chiefly concerned in obtaining wealth, a new arrangement of the subject unfolds itself, which he has adopted in his systematic treatises. Instead of the original order of ethics, economics, politics, or the regulation of man regarding himself, his household, and the State, we have it thus,—*Ethics*, as before, the relation of man towards himself; *Politics*, the relation of man towards others in a social capacity, both private and public, the family, and the State; and *Economics*, the relation of man in both capacities towards property.

This, then, appears to be the broad general outline upon which these three treatises are constructed. Yet, in treating of them at length, parts of each of them will be found incidentally necessary to the consideration of each of the

others, so that each of them will be found to be so intertwined and interlaced with the others, that they must all be studied together. Thus, in the *Ethics*, in the discussion of what happiness consists in, the question naturally arises whether wealth conduces to happiness. This leads to the consideration of the nature of money and its uses. So, in the discussion of *Liberality* (iv. 1, 2), the nature of property or wealth is discussed. And in treating of *Justice* (v. 5), he is led to the consideration of the equality of services rendered between man and man, and this involves the whole theory of *VALUE*. He says that civil society is held together by mutual exchanges, and this leads him to show that there must be some common measure of value, which is *MONEY*. In the further development of the question he discusses many things which more appropriately belong to politics.

Again, in the *Politics*, where he considers man in his social relations, he starts the question what his duties and offices are in his character of the head of a household, and this, as we have seen, leads him to discuss the true meaning of the words *Economy* and *Economics*, then to consider the art of getting wealth (*χρηματιστική*), and then whether a community of property is good or bad for a State. And in this treatise he considers man in relation to his wife and slaves, chiefly as persons, though the latter partly as property.

Lastly, in the *Economics*, which is expressly on the relation of men, both in their private capacity of individuals, and their public capacity as the State, towards property, he considers man in relation to his wife, as having rule over her, and to his slaves as absolute property. The province of *Economics*, he says, is both to found a family and to enjoy it, and the parts of a household are a man and his possessions. In Chap. 6 he says that there are four qualities which the master of a household (*οικονόμος*) ought to possess regarding wealth. Thus, the word *Economy* gradually slides almost exclusively into the meaning of wealth, and in the second book, if it be by him, he says that there are four kinds of economy or modes in which different bodies acquire wealth. The regal, the satrapical, the *POLITICAL*, and the domestic. The first two relate to the manner in which a monarchical or despotical government obtains its revenue, the third how a free state (*πόλις*) raises a revenue, and the last, how a private man makes an income. Hence, we see that the expression *POLITICAL ECONOMY* in this treatise, in which it is first used, denotes the *method in which a free State raises a revenue*. And the sense attributed to *Economy* in this book exactly agrees with that adopted by Adam Smith in the introduction to B. IV. of the *Wealth of Nations*. "Political Economy, as a branch of the science of a statesman or legislator, proposes two distinct objects, first to provide a plentiful revenue or subsistence for the people, or, more properly, to enable them to provide each a revenue or subsistence for themselves, and secondly to supply the State or Commonwealth with a revenue sufficient for the public services." Thus Adam Smith combined the four sorts of Economy, and gave them the general name of Political Economy.

We have seen (*PRELIMINARY DISCOURSE*) that

the earliest modern author who uses the term Political Economy, Montchretien, employs it much in the same sense. But the founders of the modern science of Political Economy used it in a very much wider sense, to denote the social relations of men to the State, to each other, and to property, or, in other words, they joined the politics and economics of Aristotle into one subject, and considered it as one great science, which they called *POLITICAL ECONOMY*.

The preceding section will, we trust, be found to give a sufficiently accurate notion of the ideas of Aristotle on the subject. The great difficulty consists in pursuing the changes of meaning that words gradually assume, and the subtle and sometimes overfine distinctions raised, which are subsequently overlooked and abandoned. The most ardent admirer of Aristotle must admit that he does not always maintain that rigorous accuracy and consistency in the use of terms, which is indispensably necessary in science. The different shades of meaning, too, attributed to the different words relating to wealth, are also a source of some perplexity, and require much attention. Thus, *χρήματα* sometimes means utilities, or wealth in general, and sometimes money in particular. It may be useful to endeavour to exhibit the different shades of meaning of the different words.

Οικονομία, οικονομική.—The art of managing a household, which is divided into two branches, first the art of ruling it, and secondly the art of providing subsistence for it; hence the art of using wealth already acquired, and lastly the art of acquiring wealth or subsistence.

Κτήμα.—Anything that may be possessed—possessions in general—wealth. *Κτήμα* is very rarely if ever applied to *money*, and it is sometimes used in opposition to *χρήμα*, as in Plato *De Legg.*, *κτήμα καὶ χρήμα*, property in *kind*, and in *money*.

Κτητική comprehends the art of using acquisitions, and also the art of acquiring wealth or utilities, and this art is divided into three branches, 1, the natural i.e. the increase of the products of the soil and animals; 2, from commerce; 3, an intermediate species, from forests and mines. And the second or commercial branch is subdivided into three varieties, from trading, from usury, and from the wages of labor.

Χρήμα.—Anything that may be used, or that possesses utility, hence wealth in general, or things whose value is measured by money; hence, often money in particular, as the object with which the idea of wealth is most popularly associated.

Χρηματιστική.—The art of acquiring wealth or utilities in general, and money getting.

Πλοῦτος.—Abundance, riches, wealth, connected with *πολύς*, *πλεόν*.

Νόμισμα.—Coined money, from *νόμος*—that which is appointed by law as the equivalent for commodities and services in general.

We shall now give such extracts from these treatises as are sufficient to show Aristotle's ideas upon the fundamental conceptions of the modern science of Political Economy.

Nicomachean Ethics.—Book iv. Chap. 1.

And we call wealth, all things whose value is measured by money.

Χρήματα δὲ λέγονται πάντα, ὅσων ἡ ἀξία νομίσματι μετρεῖται.

Book IV. Chap. 3.

Now the term *VALUE* is used in reference to *EXTERNAL* goods.

Ἡ δ' ἀξία λέγεται πρὸς τὰ ἐκτὸς ἀγαθά.

Book V. Chap. 5.

But in the community of exchanges, such an idea of justice as a proportionate, and not an equal retaliation, holds men together. For society holds together by means of a proportionate reciprocity of services. For either they seek to return evil for evil, (for it seems a species of slavery, if they cannot revenge themselves,) or to return good for good, for if not, there is no mutual exchange, and by this mutual exchange of service they hold together. Therefore, too, they build the temple of the Graces in the highways, that kindness may be required, for this is peculiar to gratitude. For it is right to return a service to the person who has done us one, and then to be the first to do the next one. And diagonal conjunction produces a proportionate return. Thus let a builder be A, a shoemaker B, a house C, and a shoe D. The builder then should receive from the shoemaker some of his work, and give him some of his own in return. Then if there be proportionate equality at first, and then an exchange takes place, there will be what we have said. If not, there is no equality, and such dealings cannot go on. For there is nothing to prevent the work of the one being better than that of the other. But these must be equalized. And this is true in the case of other arts also. For they would come to an end, unless the things which each reciprocally gives and receives, were equal in quality and quantity. For there is no commercial dealing between two physicians, but between a physician and a farmer, and generally between persons of different and dissimilar occupations. But nevertheless these must be equalized. Wherefore there must be some way of measuring all things, which can be exchanged, and from this necessity came the use of money. And, it is, in a sense, a medium, for it measures all things, both their excess and their defect; how many shoes for instance are equal to a house or food. As the builder then is to the shoemaker, so must the shoes be to the house, or to food. For if it be not so, there can be no exchange, or common dealing. And this cannot take place unless the things are in some way equal. It is therefore necessary, as was said before, that all things should be measured by some one thing.

And this thing, in truth, is the necessity or the *DEMAND*, which holds together all commercial dealing. For if men wanted nothing, or not to the same degree, there would be no exchange, or not to the same amount. And money has become, conventionally as it were, a substitute for the demand; and for this reason it is called *νόμισμα*, or legal tender, because it is not so by nature, but by law, *νόμος*, and it is in our power to change it for something else, and render it useless. When these things then are equalized, there will be an equal exchange of services. So that as the farmer is to the shoemaker, so is the work of the shoemaker to the work of the farmer. And when

they make an exchange, it is necessary to bring them to the form of a proportion, for if not, one extreme will have both differences, i.e., one party will receive more and give less than he ought, and the other will receive less, and give more than he ought. But when they have their own, they are equal, and can have dealings, because this equality can take place between them. Let the farmer be A, the food C, the shoemaker B, and his production made equal to the farmer's production, D. For if they could not thus make an equal mutuality of services, there could be no dealings between them. Now, it is clear that necessity or demand is, as it were, the one thing which holds commercial dealings together, because when they have no want of each other, either both or one of them, they do not exchange, as they do when one has what the other wants. As for instance, when those who want wine give corn in exchange. These things, therefore, must be made equal.

But with regard to a future exchange, (if we want nothing at present, that it may take place when we do want something) money is, as it were, our security. For it is necessary that he who brings it, should be able to get what he wants. But even money itself is liable to the same thing as other commodities, because it is not always of equal value, but yet it is more likely to vary less. Therefore there must be some way of estimating the value of all things, for so there can always be an exchange, and if this, then commercial dealings. And money made, as it were, a common measure, equalizes them. For there can be no commerce if there be no exchange, nor any exchange if there be no equality, nor any equality if there be no common measure. And, in truth, it is not possible that things which differ so much should be commensurable. But so far as regards the *want* of them, this may be possible. And there must be some one thing fixed upon by common consent. Therefore it is called *νόμισμα*, legal tender, for it makes all things commensurable. For all things are measured by this legal standard. Let a house be A, ten minæ B, a bed C, and let A be half B, if the value of a house be equal to five minæ. And let the bed C be worth the tenth part of B. It is clear, therefore, how many beds are equal to a house, namely five. And it is clear that this was the mode of exchange, before the invention of money, for it makes no difference whether five beds be given for a house, or the value of five beds.

Politics.—Book I. Chap. 3.

A complete household consists of freemen and slaves. * * * Now there is part, which some consider as absolutely identical with economy (the management of a household), and others as the most important part of it. And we must inquire how the matter stands, I mean what is called the art of getting wealth.

Book I. Chap. 4.

Since, then, property is part of the household, so also must the art of getting wealth be a part of economy, (or the management of the household,) because, without necessities, it is not possible to live, or to live well. And since in the arts which have a particular purpose, it is necessary to supply them with suitable instruments, if the work is to be accomplished, so it is in Economics. But

some instruments are inanimate, and others are animate. Thus, to the pilot the helm is inanimate but the look-out man animate, so too in the arts a workman is a species of instrument. So also property is an instrument in regard to living, and wealth is a multitude of instruments, and a slave is a living property, and every workman is an instrument above all other instruments. For if every instrument being bid or anticipating an order, could accomplish its work, as they talk of the Statues of Dædalus or the tripods of Vulcan, which the Poet says came of their own accord to the assembly of the gods, so, if the shuttles wove of themselves, and the plectrum would play on the lyre, the artificers would want no workmen, and the master no slaves. Now, what we call instruments are things for the purpose of making something else, but property is itself to be used. For, from the loom, something comes besides its use, but from clothing and a bed only its use.

Book I. Chap. 8.

And since a slave is a part of property, we shall make a thorough inquiry into the nature of property in general, and the art of gaining wealth, in the manner we have already laid down for our guidance. First, then, some might be in doubt whether the art of getting wealth is the same thing as economics, or a part of it, or subservient to it. And if subservient, whether it is so, as the art of making shuttles is to the art of weaving, or as the art of making bronze is to the art of making statues. For they are not subservient in the same way, but one supplies the instruments, and the other the materials. And I mean by materials, the stuff out of which the work is formed, as wool to the weaver, and bronze to the caster of statues. So that it is clear, that the art of getting wealth is not identical with economics. For it is the duty of the former to provide, and the latter to use. For what art is there in using what there is in the house, except economics? And still it may be doubtful whether it is a part of it, or a different species. For if it is the business of him who is seeking wealth, to discern whence wealth and property are to be got, and property and wealth include many different kinds, it must first be settled whether agriculture be a part of the art of getting wealth or something different, and whether the care and acquisition of subsistence in general, is so or not. * * *

So also it is clear that we may say, that plants were made for the sake of animals, and other animals made for the sake of man; the tame for our use and subsistence, and the wild, if not all, at least the greater part, for the sake of food and other uses, in order that we may have clothing and other instruments from them. Since, then, Nature makes nothing without an object, and nothing in vain, it necessarily follows that she has made all these things for the sake of man. Wherefore even war seems to be in some measure a natural mode of acquiring wealth. For hunting is a part of it which we are obliged to employ against wild beasts, and against such men as being born to be slaves, are unwilling to submit to it. And such a war is natural and just. That form only, then, of acquiring wealth, which is according to nature, is a part of Economics, which ought either to supply it, or those ought to cause it to be supplied, whose duty it is to keep in store

an abundance of things, which are necessary and useful to the subsistence of the community, both as a state and as a family. And true wealth seems to consist in these. And an independent property sufficient for a happy life is not boundless, as Solon, the poet, says—

“And of wealth men set no bounds to themselves.”

For there is a bound to this, as to other arts; for in no art whatever are the instruments boundless, either in number or magnitude. But wealth is a multitude of instruments, both economical and political. So that there clearly is a natural mode of acquiring wealth, both in domestic and public economy, and the reason is plain.

Book I. Chap. 9.

There is, too, another mode of acquiring property, which men especially call, and it is just to call it so—the art of gaining wealth, by which there seems to be no bounds to riches and property. This many persons consider to be the same as what has just been spoken of, on account of its near affinity to it. But though it is not exactly the same as the art which has been spoken of, it is yet not very different from it. For the former comes by nature, and the latter not by nature but rather by some experience and art. And let us commence our enquiry into it from this point. Every possession has two uses, both indeed appropriate, but not equally so. For one is peculiar to the thing, but the other is not peculiar to it. Thus a shoe may be worn, or it may be exchanged. For the shoe may be used both ways. For he who exchanges it with any one who wants a shoe for money, or food, uses it no doubt as a shoe, but not according to its peculiar use. For it was not made for the purpose of being exchanged. And the same things hold good regarding all other property. Exchanges of all things go on, which first sprung from natural circumstances, as some men have more, and others less than what they require. Hence, it is evident that retail-dealing is not a natural mode of acquiring wealth. For men were obliged to use exchanges in order to obtain what was necessary for them. It is clear, then, that in the first community, that is the family, there is no need of it, but only when the community extends. For the former of these had all things in common, but the latter who being many separate communities have each of them also many other things in common, which they were obliged to exchange with each other according to their mutual necessities, by way of barter as many foreign nations do now. For they exchange useful things for useful things, but nothing more, such as giving and receiving wine for corn, and other things in a similar way. This mode of barter then is not contrary to nature, nor is it any form of gaining wealth. For it took place for the sake of obtaining what was necessary to one's natural independence. From this mode of dealing, however, (*i. e.*, barter) arose the other (*i. e.*, money), as might be expected. For the supply of what was wanted was only to be had from a foreign country, so that the use of money was necessarily invented for the purpose of importing what was wanted, and exporting a surplus. For every thing is not easy of carriage which is naturally useful. Therefore, with a view to exchanges, men agreed upon something

to give and take amongst each other, which being itself an article of value, might easily pass from hand to hand, for the purposes of daily life, such as iron or silver, or anything else of this nature, which was ascertained at first simply by its weight and size, but afterwards by putting a stamp on it, to do away with the necessity of weighing it. And this stamp was put upon it to shew the quantity of the metal. The use of money having thus sprung from the necessity of exchanges, another form of getting wealth sprung up, namely—retail dealing, which at first was very simple, then by experience it was conducted with greater art, as to when and how commerce could produce the greatest profit. Hence the art of gaining wealth seemed chiefly to relate to money, and its aim to be, to be able to discover how to get the greatest amount of wealth. For it is the mode of obtaining abundance of wealth. For men often consider wealth to consist in the abundance of money, because it is in reference to money that wealth-getting and trading are concerned. To some, again, money seems to be a mere trifle, valuable only by law, and not by nature, so that if those who use it were to change their sentiments, it would be of no value, nor useful to obtain anything we wanted, and he who had plenty of money would often want necessary food. And it would be absurd to say, that wealth is of such a nature, that a man with plenty of it might die of hunger, as the fables they tell about Midas, who, through the insatiableness of his desire, had everything he touched turned into gold. Wherefore men seek around for some other species of wealth and property, and rightly too, for the business of money getting is different from natural wealth, which is the true Economics. But trading also procures wealth, not in every way, but only by the exchange of useful things. And the latter seems to be about money, for money is the first element and whole object of trading. And the wealth that may be got by this mode of acquisition seems boundless. For as the physician's art has no limits with respect to health, and each of the other arts has no limits in regard to its aim, (for each of these they wish to accomplish to the greatest degree possible, but the means of each of them to attain their aim are limited, and their several aims are the limits of each.) So also of this art of getting wealth there is no limit to its aim, for its aim is to accumulate as much wealth and riches as possible, but there is a limit to Economics, (or the art of using wealth,) though there is none to acquiring it, for this is not the business of Economics. Wherefore it seems that some limit should be placed upon riches, though we see the contrary of this actually happen; for all who seek wealth, increase their money without limit. And the reason of this is their near connection. For the uses of the same instrument, money, being common to both forms of acquiring wealth, are confounded with each other. For each is a use of the property, but not in the same way, for in one way there is an end of the thing itself, but in the other a mere increase of money. So that this seems to some to be the object of Economics, and they think that they ought to make it their aim to save or to accumulate a store of money without end. And the cause of this disposition is, that they take much care to live, but not to live well; and this passion being boundless, they desire to

have boundless means to gratify it. And even those, too, who intend to live well, seek after sensual enjoyments, so that as this too seems to depend upon riches, all their labour is to get money, and by this means sprung up the second form of getting wealth; for as they are excessive in their enjoyment, so they search for means to gratify this excessive enjoyment, and if they cannot provide it by means of getting wealth, they will try to do it some other way, and use all their powers in some manner not intended by nature. Thus, for instance, manly strength was not given to make money by, but to inspire courage. Nor is this (*i. e.*, making money) the object of the soldier's or the physician's art, but victory and health. But such persons turn all arts to the acquisition of wealth, as if that was their aim, and as if everything ought to contribute to that end. Concerning, then, the unnecessary acquisition of wealth, and what it is, and how we came to need it, enough has been said, and concerning the acquisition of what is necessary, which is different from it, and which is the natural form of Economics, which relates to subsistence, it is not boundless like the other, but has a limit.

Book I. Chap. 10.

That then is clear, which was doubtful at first, whether the acquisition of wealth is part of the duty of the head of a family or state, but it must necessarily exist. For as political science does not make men, but takes them from nature, and uses them as they are, so ought nature to afford subsistence, whether the land, or the sea, or anything else; and it is the duty of the head of the family to manage what he procures from these sources, as he may require it. For it is no part of the business of the weaver to make the wool, but to use it, and to know what is good and useful, from what is bad and useless. For some might doubt why the art of gaining wealth is part of economy, and the art of medicine is not, since good health is as requisite to the family as subsistence or any other necessary. And as it is in some sense the duty of the head of the family, and the State, to look after the health of those under them, and in some sense not, but of the physician; so also as to wealth, it is in some sense the duty of the head of the house, and in some sense not, but of the slaves. But it is especially the duty of nature to provide this, as has already been said. For it is the duty of nature to supply food for its offspring, for food is provided for everything from the source from which it comes. Wherefore, the natural mode of gaining wealth to all, is by the increase of the products of the earth, and of animals. But since, as we have said, they may be applied in two ways, one for the purpose of trading, and the other for domestic consumption, of these the latter is necessary and commendable, but their use in trading is justly censured, (for it does not spring from nature, but from ourselves,) the trade of usury is most deservedly detested, because the gain comes from the money itself, for which purpose it was not intended. For it was made for the purpose of exchange, but usury multiplies it. From which circumstance it takes its name, *τόκος*, *progeny*, for the very thing which is begotten is like its parent, and usury is money begotten of money, so that of all modes of making profit, this is the most contrary to nature.

The Economics.

Aristotle having treated of man in relation to himself (*Ethics*), in relation to other men, both in his private and public capacity (*Politics*), comes next to treat of him in his relation to property (*Economics*). But yet the name is mixed up with political considerations, for he says that the political form of government is composed of many rulers, and an equality of heads of houses, but an economical rule is monarchical like that of the head of a house.

Chapter I., 1.

"Some of the arts indeed are divided into two parts, and it is not the same which makes and uses what is made, as for instance, a lyre and pipes. It is, however, the business of politics both to constitute a state from the very beginning, and to manage it well when it is established. And a state indeed is a collection of families, and territory, and property sufficient to support a comfortable existence. And it clearly is so, because when they are unable to attain this end the society is dissolved; moreover, this is the object for which they came together. But that for the sake of which anything exists and is produced is its essence. So that Economics are clearly anterior to Politics, for their object is so, and a household is part of the state. We must, therefore, examine what economical science is, and what is its object.

Chapter II.

"The component parts of a household are a man and property; and since the nature of anything is best seen in its simplest parts, the same holds good with regard to the household. So that as Hesiod (*Op. et Di.*, 405), says, there ought to be,

"First a house, then a wife, then oxen for the plough."

For the first of these is necessary for food, and the others belong to freemen. So that one ought to lay down good rules for the society of a wife, that is to say, about what kind of a one should be provided. But the first care should be given to acquire property according to nature. But by nature agriculture stands first, and in the second place, such profits as come from the earth, such as mining and other things of this sort. But agriculture above all, because it is just; because it does not derive its gain from men with their consent, as retail dealing and the wages of labor, or against their will, as by war. Moreover, it is in accordance with nature; for all things naturally derive their subsistence from their mother, as men do from the earth. And besides this it greatly contributes to manly courage; for it does not make the body unserviceable as the mechanical arts do, but able to live and to work in the open air, and especially able to brave the enemy, for these are the only persons whose possessions lie outside the city walls."

He then discusses the conjugal relations, as the wife was, in Grecian ideas, in some sense the property of the husband. Thus, in the *Politics* he discusses the relations of a man to his wife, and slaves, chiefly as persons, in the *Economics*, as property.

The second book of the *Economics* is by many entirely rejected as spurious, some, however, allow the first chapter to be genuine. However the

case may be, the first chapter is the only one which is of the character of a treatise. All the rest is a mere collection of expedients used by different persons to obtain money on various occasions. If it be by Aristotle at all then, it is merely a collection of raw materials, which he intended to use as advisable in a regular treatise. In *Politics* I, c. 11, we find some instances cited of the same description as are gathered together here; and in V., 2, he quotes the case of Cypselus, which also occurs in *Economics* II., 2. So that the case seems enveloped in much doubt. We shall only notice the first chapter, in which the expression *POLITICAL ECONOMY* appears for the first time.

Economics.—Book II. Chap. 1.

"And there are four different kinds of Economy (for we shall find that all others may be reduced to these), the regal, satrapical, the *POLITICAL*, the private. But of these the Regal is the greatest and most simple; the *Political* is the most varied and the easiest, and the Private is the least and most varied. And they must necessarily have many points in common, but we must first look to those points which are the distinctive features of each. First, then, let us consider the Regal Economy. And this is of universal power, and it comprehends four forms, about the coin, about exports, about imports, and about expenditure. And of these the most important is that which relates to the current coin, I mean when and how much it should be raised or lowered in value; and with regard to exports and imports, when and what receiving from the satraps in office, it will be profitable to sell; and with regard to the expenditure, what can be taken off, and when, and whether contributions to the expenses should be given in money or in kind. Secondly, is the Satrapical Economy, and of this there are six species of public income, from land, from native productions, from merchandize, from taxes, from cattle, and from other sources. And of these, the first and the best is that which comes from the land (and this is what some call rent, or land-tax, and some tithes); and the next comes from native productions, such as gold, silver, and copper, and where each of them is to be got. And the third is that from trading, and the fourth is that which comes from agricultural produce, and market tolls; and the fifth is that from cattle, which is called profits, or tithes; and the sixth is that which comes from other sources, which is called the poll-tax, and handicraft-tax. And the third is the *POLITICAL ECONOMY*, and of this the best income is that from the natural products of the country, then that from trading, and transit duties, then that from daily business. And the fourth and last, is the Private Economy; and this is not subject to any particular rule, because a household is not managed with reference to any single aim; and it is the least, because the incomings and outgoings are on a very small scale. And of this also, the best kind of income is that which comes from the land, next that from other kinds of personal property, and thirdly from usury. And, besides these points, there is one which is common to all the kinds of Economy, and it must be looked upon as no subordinate part of them, especially in the last kind, that the expenditure should not exceed the income."

We have given these long extracts from Aristotle, because that great philosopher is undoubtedly to be considered as the father of political economy, and the reader has thus brought before him enough to enable him to form his own judgment of what his ideas on the subject were. They are also interesting, as presenting the first ideas of what were the objects and limits of political economy, in which it is impossible not to see that there is a certain unsteadiness of view and a want of fixity of conception characteristic of the imperfection of the science. But yet it is not too much to say, that in these extracts, together with the one from *Æschines Socraticus*, which we have already given, are contained the chief fundamental conceptions from which the science may be deduced by strict reasoning. Thus, we see that he lays it down as a definition that *Wealth is everything whose value may be measured in money*, which is the fundamental and comprehensive conception on the subject. And it manifestly follows that the converse is true, *that everything whose value is measured in money is wealth*. The very first thing, then, to be done, is to discover all things which fulfil that test. As soon as we do this we find that that this definition embraces all that the most advanced Economists have declared to belong to it. For it manifestly includes not only *material* wealth, at which Adam Smith and Ricardo stopped short, but also all *mental* acquirements or qualities which may be turned to profit, which *Æschines* in ancient times saw, and which view J. B. Say, and the modern French School of Economy, Mr. Senior, and Mr. J. S. Mill, have adopted. But even this enumeration is not extensive enough, because it also manifestly includes all instruments of credit of all sorts, all deferred payments and annuities, as we have shewn elsewhere, (*Theory and Practice of Banking; and Elements of Political Economy*), in short anything that may be bought and sold. Thus, we see that the whole science of Political Economy is included in a proper and legitimate interpretation of Aristotle's definition.

Having thus conceived a definition which embraces the full extent of the subject, Aristotle also saw clearly and enforced the doctrine that value is not an *internal quality*, but an *external relation*. That value means exchangeability, and that whatever has that quality has value, as *Æschines* too saw. That in fact, *VALUE IS NOT A QUALITY BUT A RATIO*. And this is the true rock upon which Political Economy is to be built. It is that great first principle which is to be steadily kept in view through all controversies, and the neglect or misunderstanding of which, is the chief cause of the confusion which has arisen.

Again, he saw that the originating cause of value was the necessity, or want of the purchaser, in modern language, the demand, and that the measure of value was the degree of the necessity, or want, or the intensity of the demand, and that this is measured by money. But in this point his doctrine is defective, because though it is perfectly true that demand is the *origin* of value, yet it is necessary to show that competition to supply the demand regulates the *amount* of value. These are the two opposing elements, which in all cases whatever, regulate value, as we have shewn elsewhere. (*Theory and Practice of Banking*, chap. 2. *Elements of Political Economy*, chap. 2.—*PRICES, THEORY OF.*) Thus, in this instance, Aristotle's

conception is not so complete as in the first case, because it does not include the whole of the truth, but only one side of it.

And in fact, a false conception of the cause of value is the rock which has proved fatal to almost all modern Political Economy. For it is almost entirely founded on the doctrine that *labor is the cause of value*, a principle which is carried to its extreme point in Mr. McCulloch's theory of absenteeism, which we have already noticed. This doctrine is the *ignis fatuus* which has been the ruin of most of modern Political Economy. Labor is never, in any case whatever, the cause of value, although in the majority of cases, it is inseparably associated with it, and it often influences the amount of value. Archbishop Whately has thoroughly exposed this fallacy (WHATELY), and has laid the foundation of a new system of Political Economy. In a single paragraph he has effected the entire overthrow of the system of Political Economy of Adam Smith, Ricardo, and McCulloch. This paragraph contains the germ of an entirely new mode of treating the subject, which it is the object of our *Elements of Political Economy* to develop.

Although Aristotle gave money the name of the medium of exchange, yet he saw clearly that its use was to enable transactions to take place without an exchange of *commodities*. That, in fact, it was the representative of services for which some commodity or equivalent in exchange is still due. "But with a view to *future* exchange, if we have at present no need of it, money is as it were, our security, that when we are in need we shall be able to make it." Now, this is exactly the conception which, with a slight change of language, we have shewn to be the true basis of Monetary Science. (*Theory and Practice of Banking. Elements of Political Economy.*—*MONEY*). Money is something that is wanted, and wanted only, when there is *no* exchange of commodities, or an *unequal* exchange of them, and its true use is to represent the inequality of the exchange, or the quantity of services due to the possessor of it. It is, in short, the representative of *DEBT*, or a universal Bill of Exchange, which the owner of it can demand payment of at any time he pleases. This is the fundamental conception of Monetary Science, and pursued to its legitimate consequences contains the whole theory of Money. (*CURRENCY.*)

Aristotle saw too, that so far as regards Economic Science, human labor is to be classed with instruments; an instrument, it is true, above all other instruments, but yet an instrument. In modern language it is a species of capital, and its value is subject to the very same laws that all other commodities are subject to.

We see then, that in these extracts are contained the great leading outlines and fundamental conceptions of Political Economy, which require only to be filled up, and developed to their legitimate consequences, in exactly the same manner that is done in all other natural sciences. Bacon says that there are deserts and wastes in time, no less than in lands. But there are, too, desert places in the human mind, and science was one of those sterile regions in the mind of Antiquity, so fertile, so rich, and so prolific, in all works of the imagination. And these seeds of truth, sown by Aristotle, fell in this desert and barren region

and remained unproductive for more than 2000 years before they began to germinate, and bear their legitimate fruit, under modern culture.

On the other hand, we cannot fail to remark that his views were tinged with a good deal of that fanciful species of dogmatizing, or laying down arbitrary principles without sufficient proof, and those overfine and supersubtle distinctions, which were so marked a feature of, and exercised so deleterious an influence over, much of ancient physical philosophy, and which is the true reason of its having made so little advance. Thus, he lays down that the bounty of nature is the only true source of wealth, and he has a decided and prejudiced aversion to trading. He says that there are two uses of everything, its actual use, and exchange. The one he considers natural, and the other against nature. This difference in the mode of use corresponds very much to the distinction between revenue and capital. A shoemaker would probably think that the exchange of a shoe is quite as natural an operation as using it. Aristotle looks with a very doubtful and jealous eye upon all exchanges whatever. But, money being for the very purpose of exchange, has thus a dubious origin, and when that purpose, which is already doubtful, is changed into lending it at usury, its mischief is doubly aggravated, and he pronounces the last mode of using it to be utterly detestable and unnatural.

And this arbitrary dogma and unfounded prejudice enthralled the human mind for centuries. Calvin was the first great man who had penetration enough to expose this sophism, which imposed even on the mighty intellect of Dante. So entirely is this dogma now overthrown that the modern doctrine is, that money *naturally* produces interest, and many important branches of the theory of value entirely depend upon it. (ANNUITIES.)

Some of the most admirable examples of reasoning have been employed in the overthrow of the doctrine of the inherently wicked nature of usury. Conspicuous among these is Bentham's *Defence of Usury*, a very masterpiece of argument, which indeed has done its work so effectually that it is now in great danger of being forgotten. We may perhaps be inclined to smile at the fallacy which so long deceived the senses of mankind, but we shall find, in the course of this work, that many of the most firmly accredited doctrines of Political Economy at the present day, are as entirely baseless and unfounded as the doctrine of usury which we see now to be so fanciful.

And it is, in truth, this very spirit of arbitrary dogmatizing, and reception of fanciful doctrines on the authority of great names, without a due investigation whether they are truly founded in nature, which is the bane and the plague-spot of Political Economy at the present day, and which has made it the last of the sciences to be brought within the pale of Inductive Philosophy.

ARNOULD, AMBROIS MARIE.—Born at Dijon, in 1750, where he studied, and then came to Paris, where he devoted himself to finance and Political Economy. In 1791 he published his *Balance of Trade*, which procured for him the place of chief of the Board of Trade, which he lost in 1794, when all commerce was destroyed. After the 9th Thermidor he opposed the National Con-

vention, and was one of the chiefs of the Parisian insurrection of October, 1795. Obligated to fly on account of his share in these events, he devoted himself to writing works relating to Political Economy, which gained him considerable reputation. In 1798 he was elected a member of the Council of Ancients by the department of the Seine, and all his time was employed in drawing up reports on commerce and finances. In 1799 he was appointed one of the Council of five hundred, and he took a warm part in the revolution of the 18th Brumaire. On the 27th December, 1799, he presented a long report upon the means of restoring public credit. This and his ardent Bonapartist zeal gained him a place in the tribunate, and after its suppression he was appointed Master of the Accounts and Counsellor of State, and died in 1812. He was a disciple of the theory of the Balance of Trade.

De la Balance du Commerce, et des relations commerciales extérieures de la France, dans toutes les parties du globe, particulièrement à la fin du règne de Louis XIV., et au moment de la révolution. Paris, 1791. Second Edition, 1795.

Repartition de la contribution foncière ou division en huit classes fondamentales des 83 départements. Paris, 1791.

Point de terrorisme contre les Assignats. Paris, 1794.

Système maritime politique des Européens dans le dix-huitième siècle, fondé sur leurs traités de paix, de commerce, et de navigation. Paris, 1797.

Histoire générale des finances de France, depuis le commencement de la monarchie; pour servir d'introduction à la loi annuelle du budget de l'empire Français. Paris, 1806.

ARNOULD, D.,—Inspector of the University of Liege.

Avantages et inconvénients des Banques de prêts, connues sous le nom de monts-de-piété. Namur.

Situation administrative et financière des monts-de-piété en Belgique. Bruxelles, 1845. G.

ARRIQUIBAR, Don NICHOLAS D',—Merchant of Bilbao, died in 1778. A Spanish Economist whose work is said to contain much sound information and judicious views, which have partly gained ground in Spain. He translated Davenant's works into Spanish, and was an opponent of the doctrines set forth by Mirabeau in the *Ami des hommes*, in favor of the large farm system. His work was published posthumously, at Victoria, in 1779.

Recreacion Política. Reflexiones sobre el amigo de los hombres, en su tratado de poblacion considerado con respeto à nuestros intereses. Victoria, 1779.

ARRIVABENE, JEAN, Le COMTE.—Born at Mantua, 24 June, 1787. Count Arrivabene emigrated in 1822, in consequence of the Piedmontese insurrection in 1821; and after being imprisoned at Venice for seven months, he was condemned to death *par contumace* in consequence of his share in that event. He has lived in Belgium since 1827, and is one of the editors of the *Journal des Economistes*.

Sur les colonies agricoles de la Belgique, et de la Hollande. Brussels, 1830.

Considerations sur les principaux moyens

d'améliorer le sort des classes ouvrières. Brussels, 1832.

Principes fondamentaux de l'économie politique. Paris, 1835.

Sur la condition des laboureurs et des ouvriers Belges, et de quelques mesures pour l'améliorer. Brussels, 1845.

Situation économique de la Belgique. Brussels, 1845.

Also translations of Mr. Senior's, and Mr. James Mill's Elements of Political Economy. G.

ARTHUR DE LA GIBONNAIS.

De l'usure, intérêt, et profit qu'on tire du prêt, ou l'ancienne doctrine opposée aux nouvelles opinions. Paris, 1710. G.

ASGILL, JOHN.—During the latter half of the 17th century this country teemed with projects for the erection of banks of all kinds. One projector more fortunate than the others, William Paterson, succeeded after several efforts in establishing the Bank of England. The success of this establishment at its outset, imparted additional activity to other projectors, and the financial necessities of the Government to support the war with France, made them lend a willing ear to any one who promised them relief. A number of schemers, among whom Briscoe, Chamberlen, and Asgill were the most conspicuous, succeeded in getting an Act passed to establish a Land Bank. The project, however, completely failed. This Asgill was a lawyer of Lincoln's Inn, who had attained considerable eminence in his profession, and was a man of considerable wit, and ability. The stoppage of the Bank of England in 1696, and the great scarcity of money, owing to the bad state of the silver coinage, which had been called in to be recoined, set the busy brains of Asgill and others to devise a new species of money besides gold and silver. The ideas of these persons were, that a paper currency based upon land would answer equally well as gold and silver, and might be issued to the amount of the value of the land in specie without depreciation. To enforce this view Asgill published his pamphlet mentioned below. This was the principle afterwards adopted and developed at much greater length by John Law, and which was afterwards carried out with such tremendous consequences by means of *Assignats*, in the French Revolution (*Assignats*). As this doctrine has found hosts of admirers from that day to this, and, as it touches the very first principles of Monetary Science and Political Economy, we shall reserve a full discussion of it, until we come to the most eminent person with whose name it is associated. We shall accordingly consider the opinions of Asgill and other pre-Lawites together with the work of John Law himself. (LAW.)

In 1699, Asgill went to Ireland, and obtained a very lucrative business under the act for the resumption of forfeited estates. He married the daughter of the attainted Viscount Kenmare, and purchased of the Crown his estates, to be held in trust for his son. He was returned to the Irish Parliament for the borough of Enniscorthy, but the house expelled him four days after he took his seat, for having written a pamphlet said to contain blasphemous doctrines. In 1705 he was elected

member of the English House of Commons for the borough of Bramber, being the executor of his friend, Doctor If-Jesus-had-not-died-for-thee-thou-hadst-been-damned Barebone, who had considerable property in the town. In 1707 he was arrested for debt during an interval of privilege. The house ordered him to be released, but his pamphlet was brought before the house, which voted it blasphemous, and, notwithstanding a spirited defence, he was expelled 18th December, 1707. He was then again immediately arrested, and remained a prisoner in the Fleet and King's Bench prisons for 30 years, till his death in 1738. During this period he wrote and published an immense number of pamphlets, chiefly political and theological, which had considerable success. Some accounts state that he was 80, and some that he was 100, at the time of his death. The pamphlet in which he brought forward his currency doctrine is entitled—

Several Assertions proved in order to create another species of money than gold and silver. Lincoln's Inn, Sept. 1696.

ASHBURTON, LORD.—See **BARING, ALEXANDER.**

ASSETS.—From the French *assez*, enough. It is alleged by some authorities that in early times, before feudal doctrines became so firmly imbedded in our law, that the heir of a deceased person was bound to pay, out of the inheritance, such of the debts of his ancestor as his goods and chattels were not sufficient to satisfy. Other authorities, however, deny this. At a later period it is certain that heirs were not bound, unless specially named in the contract. In such cases as the heir was bound by deed, or writing under seal, to the payment of a debt, or the fulfilment of a contract, he became liable to do so to the extent of the lands which came into his hands. And the lands so descended were called *assets* by descent, because the possession of the land was *enough* or *sufficient* to make him liable for the debts of his ancestor to that extent. So the property which comes into the hands of any executor is called *assets*, because it is *enough* to render him liable for the debts of the testator to that amount. So the property of a bankrupt which comes into the hands of his assignees is called *assets* because it is enough to make them liable to discharge the bankrupt's debts to that amount. So the word *assets* has come to signify the property in general of any trading company; and besides that, it denotes anything that is a *sufficient* account, or answer to a liability. Thus, when the Directors of a Company receive the capital or subscription of the shareholders, that becomes a *liability* from them to the shareholders. But as the establishment of every concern requires a considerable expenditure, the "Preliminary Expenses" are an *asset* as between the directors and shareholders, because it is a sufficient account to the shareholders from the directors for their liability. So the profits of the year are a *liability*, and the payment of the dividend is an *asset*, because it is a sufficient account of the liability. So also in banking, the credits entered to the accounts of the customers on the deposit of money, or the discount of bills of exchange, are *liabilities*. The money actually deposited, or the bills of exchange discounted by the

customers, are the *assets*, because they are sufficient to meet the liabilities.

ASSIGNATS.—The paper currency, not convertible into specie, but for the security and redemption of which certain public lands were *assigned*, which was created during the French Revolution from 1789 to 1796.

1. The history of the assignats deserves to be studied with the greatest attention, as they afford the most perfect example the world has seen of a certain theory of currency which was originated by some schemers in this country, in 1695.—(ASGILL, BRISCOE, CHAMBERLEN.) This theory was further developed by John Law, (LAW) and forms the peculiarity of his system, and notwithstanding the results of practical experience, it has still numerous warm supporters in this country and abroad. Nor can anything be more instructive than to read the views and expectations of its advocates in the debates in the French National Assembly, and its practical results which followed so immediately after its adoption.

2. The doctrine simply stated is this:—"That if a paper currency, not convertible into specie, be based or secured upon any article of value, such as land, and be issued to an extent not greater than the value in specie of such article, such paper currency will not be depreciated in comparison to specie."

3. Such is the theory of John Law, which found great favor in France during the financial embarrassments of the Revolution. His treatise on Money and Trade, in which this theory is developed, was translated into French in 1790, for the purpose of enlightening the public mind, and the issues of the assignats were expressly founded upon it. We shall now see how it was verified in practice.

4. Whatever moral causes contributed to bring about that unparalleled convulsion, named the French Revolution, the immediate cause was the apparently irremediable disorder of the finances, and the habitual excess of the expenditure over the receipts. And yet, when we come to examine the actual amount of debt which brought that great kingdom to destruction, we shall be surprised at its comparative insignificance. In the year 1750 the entire public debt of France was only £88,000,000. Thirty-seven afterwards, in consequence of the war in support of the Americans, and a long series of annual deficits, it had risen to £120,000,000. But even this was trifling compared to the resources of the country. Great Britain, with a soil not equal to two-thirds of France, and a population of about 12,000,000, was flourishing under a debt of £238,000,000. France, teeming with resources, had a population of 25,000,000. A succession of able ministers, since Turgot, in 1771, had been vainly endeavouring to curb the constantly increasing deficit, and to equalize the expenditure with the receipt. But the measures, necessary to effect this, aroused the deadly hostility of all parties. The attempts to reduce the expenditure made enemies of those who lived on the plunder of the public; and the attempts to raise new taxes set the privileged orders of nobility, and clergy, in a flame. Credit was for some time sustained by presenting to the public willfully falsified accounts, but when the actual truth was discovered, it destroyed all the

confidence of the capitalists, and no fresh loan could be raised.

When Calonne was made Minister of Finance, in 1783, he found only two bags, of 1,200 francs each (£48), in the treasury. The annual deficit was upwards of £4,000,000. His financial reputation enabled him, for a few years, to contract a series of loans, the dates of these were:—

	Francs	£
Dec. 1783	100,000,000	or 4,000,000
" 1784	120,000,000	" 4,800,000
" 1785	80,000,000	" 3,200,000
Sept. 1786	30,000,000	" 1,200,000
Feb. 1787	50,000,000	" 2,000,000
	<hr/> 380,000,000	<hr/> 15,200,000

5. At length, at the end of 1786, it was felt that this system could go on no longer, and Calonne proposed that the ancient practice should be resorted to, of calling together the *Notables*, to give their advice under the gravity of the situation. This advice was adopted, and that body met in 1787, when the real state of the finances was laid before them, which shewed that for upwards of thirty years there had been a constantly increasing deficit. In 1764 it was already £1,600,000, in 1786 it was £4,600,000, and for the current year it would not be less than £5,000,000, and, upon this appalling state of matters, he called upon the nobles and clergy to forego their privileges, and submit to equal taxation with the other classes.

6. His exposures and proposals created a universal storm of indignation from all classes. The philosophers and the liberals were furious to find that this state of things had existed under the administration of their favorites, when they wished to make it appear that all the difficulties were owing to the extravagance of the Court. The nobles and clergy unanimously resisted all breaches of their ancient immunity from taxation. Calonne was obliged to yield to the storm and retire. On the 11th April, 1787, Brienne, Archbishop of Toulouse, was appointed to succeed him. The new minister presented a financial statement to the *Notables*, exhibiting a deficit of £5,600,000. But the privileged orders resolutely refused to tax themselves, and declared, that neither they, nor the Parliament, nor any other authority but the *STATES-GENERAL*, had the power to do so. As any measures of relief were hopeless, the Assembly of *Notables* was closed on the 25th May, 1787.

7. All attempts to induce the *Notables* to submit to sacrifices for the public good having failed, the government went on in the old despotic system. The Parliament of Paris was more compliant than was expected, and registered some edicts which they had previously refused. On the 14th of July, Brienne tried to induce them to register an edict imposing a duty on stamps, but they immediately refused to do so, unless the state of the accounts was laid before them. "You ask for the *State* of accounts, it is the *States-General* that you want," cried a member. This expression embodying the universal feeling, produced an immense sensation. The Parliament decided that no perpetual tax could be imposed, except by the *States-General*.

8. Brienne sent back the edict for a stamp duty to the Parliament to be registered, along with one to impose the land tax equally upon all classes. The Parliament replied that they were incompetent to register such edicts, and that the States-General only could impose such taxes. The king sent to register the edicts by force, and banished the Parliament to Troyes. All these circumstances tended to increase the universal demand for the States-General. At length both the Parliament and the Crown, seeing the necessity of an accommodation, came to a compromise, by which it was agreed to withdraw the forcible registration of the edicts, and the Parliament did so voluntarily. In November, Brienne proposed to borrow £17,200,000, to be paid up by instalments in five years, and, as an inducement, pledged the Royal word that the States-General should be summoned before the end of that period. The Parliament, however, refused to assent to this enormous loan.

9. In May, 1788, the *compte rendu* shewed a deficiency for the year of £8,440,000, and as all resources seemed at an end, from the constant refusal of the Parliament to consent to any new taxes, and the total extinction of credit, a national bankruptcy seemed inevitable. Seeing that the Parliament was inflexible in its determination to refuse all new taxes, Brienne convoked an assembly of the clergy, hoping that they would consent to be taxed, or at least to vote a gift, for the relief of the State. But the clergy were as obstinate as the laity, and equally demanded the States-General. All hopes of assistance from the nobility, clergy, or Parliament being thus at an end, and the sum in the treasury being reduced to £16,000, on the 8th of August an edict was issued convoking the States-General for the 1st May, 1789, and on the 16th, the Exchequer adopted a partial suspension of cash payments. All dividends above £48 were to be paid, two fifths in paper, and the remainder in specie. Two days afterwards the notes of a private banking company, the Caisse d'Escompte, were declared legal tender, and the Bank forbidden to pay them in specie, which made them immediately fall to a heavy discount.

10. The proclamation of a national bankruptcy created such a universal storm that Brienne was obliged to resign, and Necker was recalled. His wealth and his reputation as a financier, brought a temporary restoration of credit, and loans were freely tendered to him, which procured a transient alleviation of difficulties. The frightful disorders of the country in 1789, completely prostrated the power of the Government. It became impossible to collect the taxes, the revenue had already fallen off by £8,000,000, and Necker, on the 6th August, 1789, laid the state of the finances before the Assembly, and demanded a loan of 30,000,000 francs, but so low was public credit that no capitalists could be found to advance it.

11. On the 24th September, Necker told the Assembly that credit was at an end, money had disappeared from circulation, and was everywhere hoarded, and offers of an increased rate of interest had entirely failed in effecting a loan. The Exchequer, the City of Paris, and all the public bodies, were bankrupt. The King and Queen and the Ministers had sent all their plate

to be melted down, but such sums were quite inadequate to meet the public expenses. The working classes were in a dreadful state, and, unless means were immediately found, neither the troops, nor the dividends, nor the public debts could be paid.

12. At length the Assembly could no longer stave off the necessity of some decisive measures. On the occasion of Necker's appeal to them, it had voted a tax of 25 per cent. upon every body's income, which had been much less productive than had been expected. On the 2nd October, Talleyrand brought forward a motion to confiscate the whole ecclesiastical property of the kingdom, and after reserving a pension to the clergy, to appropriate the remainder to the public necessities. This was vehemently opposed by Maury and Sièyes, but carried by a majority of 568 to 341. Forty did not vote, and 246 were absent. Thus these unpatriotic men who refused to give any portion of their property to aid the public necessities, saw themselves deprived of the whole of it. This property was estimated at £80,000,000, and the sale of it was expected to produce sufficient means to defray the pensions of the clergy, the interest of the public debt, and the civil establishments for some time.

13. No immediate purchasers could be found for this immense property. The Assembly had ordered the sale of church and crown property to the amount of £16,000,000, and on the 19th December, 1789, decreed that a paper currency should be created to that amount, bearing 5 per cent. interest, and called *assignats*, because these lands were decreed to be sold to redeem them. This plan, however, did not succeed; after the terrible excesses of the preceding summer few wished to buy the land, and they did not place much confidence in a revolutionary title. Under these circumstances, the municipality of Paris proposed that it, and the other principal cities in the kingdom, should purchase the property, in the first instance, for the purpose of reselling them by degrees in smaller portions. As they had no funds to pay for this property, they gave Bills payable at a certain date, called *bons* or municipal paper. The holders of these *bons* had the right of requiring that a sufficient quantity of property should be exposed to sale to reimburse them.

14. When these *bons* became due the municipalities had no means to pay them, and then, by a decree, of April, 1790, the assignats, ordered to be created by the decrees of the 19th and 21st December, 1789, were declared legal tender, with interest at the rate of 4½ per cent., the value of the Assignat being the capital, and the interest calculated day by day. The clergy, who saw in this measure the final break up and loss of their property, and the nobility, who were now thoroughly alarmed at the unexpected length to which the Revolution had already gone, vehemently opposed the creation of this paper money, and numerous addresses against it were presented from the chief cities of commerce.

15. The entire unsettlement of the government during this Revolutionary period, had only increased the public debt in a greatly augmented ratio. From 1750 to 1787 it had increased by thirty-two millions. In three years, from April 1787 to April 1790, it increased by £49,560,000. The relief obtained by the first issue of Assignats

was too small to last long, and the ease with which it was procured, naturally caused a speedy recurrence to the same resource. In September, 1790, it became impossible to meet the payments of the public debts, and debates on the subject anxiously occupied the Assembly day after day. After a long speech on the public debts, Mirabeau proposed to create new Assignats, to double the amount of the former issues. This proposal was strongly resisted by Bergasse, Lazerolles-Cazales, Maury and others, and supported by Barnave and others, and finally carried.

16. The question of the Assignats called forth the most vehement debates, and created great interest in the public. Several long dissertations for and against them appeared in the *Moniteur*, and the debates in the Assembly well deserve a perusal. Nothing can be more admirable than the speeches of Talleyrand, Antoin Morin, Décrétat, and Dupont de Nemours, pointing out the ruin and misery they were certain to bring upon the country. Already a depreciation had appeared with the first issue. For wine, which sold for 200 livres in money, cost 220 in assignats; and the piastre, which was 5*l.* 7*s.* in specie, was 5*l.* 18*s.* in paper. Dupont de Nemours warned them by a very striking example, of what the consequences would be. He said,—"You have a striking example before your eyes. There was, ten years ago, in the United States of America, a paper currency secured like the one you propose, on the honor and loyalty of the whole republic, and on an enormous amount of landed property, supported also by eloquent speeches, by Sovereign decrees, and by the safety of the State. Well, in spite of all that Congress, Washington, and Franklin could do, a pair of boots sold for £36,000 in paper, and a supper for four persons, for which ten dollars was the usual price, cost £50,000 in paper." Admirable and conclusive as these speeches were, they do not appear to have elicited a single mark of applause, while those of Mirabeau and Barnave, filled with the most palpable fallacies, and which were afterwards most signally falsified in every particular, were received with enthusiastic applause. Just the same as afterwards took place in the English House of Commons in 1811, with respect to the Bank Note, from the consequences of which folly we are still suffering. So much for the value of the judgment of a popular assembly upon a scientific question. It was carried, by a majority of 508 to 423, that fresh Assignats, to the amount of 800,000,000 of francs should be created, but it was firmly resolved that the issues should never exceed 1,200,000,000, and they were to bear no interest, and the interest on the first issue was stopped.

17. Specie had already begun to disappear with the first issue, it now continued to do so with accelerated rapidity, and the exchange with London began steadily to fall with each succeeding issue, until at last it ceased to be quoted. These were the very same phenomena which were manifested twenty years afterwards in England, and which gave rise to the celebrated Bullion Report, and exactly the same doctrine was then maintained, that it was the value of specie which had risen, and not that of the paper fallen, which was the resolution of the House of Commons in 1811.

18. During 1791 two fresh creations of 200,000,000 were decreed, 1st November, and 18th December, and it then appeared that two milliards 600,000 (£80,024,000) had been created, and 348,000,000 (£13,920,000) burnt, and the exchange with London, which had been 27½ in January, 1790, had fallen to 25 in October, to 24 in May, 1791, to 23 in July, and to 19 in December, and was subject to very violent fluctuations.

19. In 1792, on the 30th April, a new creation of 300,000,000 (£12,000,000) was decreed, and the maximum in circulation raised to 1,700,000,000, or £68,000,000. On the 31st July another creation of 300,000,000 was decreed, and the total allowed to be in circulation raised to two milliards (£80,000,000). On the 24th October the Committee of Finance reported that in all two milliards, 589,000,000, had been issued, of which 617,000,000 had been withdrawn from circulation and burnt, which made the number in circulation on the 5th October, 1,972,000,000, and at the same time the national property held to secure them was valued at 3,170,638,237 livres. A further issue of 400,000,000 was then decreed, and the maximum fixed at 2,400,000,000.

20. During the winter of 1792-3 the internal evils of the country greatly increased. The Assignats were at a discount of 30 per cent., and the shopkeepers everywhere refused them in payment of articles of prime necessity, and they kept back their commodities from the market rather than sell them for this depreciated paper. Where sales were effected the price rose enormously in proportion to the diminution in value of the Assignat. This increase of the nominal price was usually attributed to the greed of forestallers, or *accapareurs*, and the more violent began to demand a *maximum*, or fixed price. The Girondists, who were chiefly the commercial party, and even the Jacobins at first were opposed to the maximum. Riots broke out in Paris in February, 1793, the populace plundered the shops, and assailed the Jacobins with the most violent menaces in case they refused to petition the Convention to enact the *maximum*. The most influential popular leaders in vain endeavoured to appease their fury.

21. On the 3rd February, 1793, Cambon reported to the Convention that up to the 26th January, 3,067,450,040 Assignats had been created and issued, of which 682,000,000 had been returned in payment of taxes and national domains, leaving 2,387,460,040 in circulation. The domains already in the hands of the State amounted to 3,170,638,237 francs, which exceeded the Assignats created by about 70,000,000. He estimated the emigrants at 29,000, and their property, after subtracting their debts, at a net capital to the State of three milliards. He further estimated that property to the amount of about 1,600,000,000 had recently come into the hands of the State, and that the total property upon which Assignats might be created amounted to about four milliards 600,000,000. He recommended that a fresh creation of 800,000,000 should be decreed. This was done, and the sum total allowed to be in circulation fixed at three milliards 100,000,000. The same day war was declared with England. In the meantime the public distress went on increasing. On the 11th

April the Convention decreed six years' imprisonment to any who should sell Assignats for less than their nominal value in silver, or should make a difference in prices, according as they were paid in paper or specie. And on May 2nd, they decreed a *maximum* price of corn for a limited time.

22. On the 7th May fresh creations were decreed to the amount of 1,200,000,000, the public property being estimated at nearly seven milliards. Notwithstanding the severity of the law, a silver franc in June was worth three paper francs, and in August six. In July the forestalling of provisions, and even retaining them from daily sale, was declared a capital crime, and every one was ordered, under a similar penalty, to make a return of the quantity he had on hand, and the quantities he intended to bring to market.

23. The government made the most energetic efforts to bring the Assignats to par, and to inspire the holders of them with confidence. Cambon stated that an *agiotage* took place between the Royal and Republican Assignats, and demanded the suppression of those bearing the effigy of the king. On the 28th July, it was decreed that all the latter under one hundred lives, should cease to be legal tender, but should be received in public payments till the 1st of January following. In order to attach the interests of all the public creditors to the revolution, the whole of the public debts were consolidated. Some of them were as old as the time of Louis XIII., and they were of many different forms. The *Moniteur* of 1793, No. 273, contains, in a supplement of sixteen pages, a complete account of the public debts and the decree for consolidating them. Cambon said that the debt must be made uniform and republicanized. It was decreed upon his proposal, that a great book should be formed, called the "Great Book of the Public Debt," in which the names of all the public creditors should be inscribed. The capital of each was converted into a perpetual annuity, at 5 per cent. This was to be their sole title, and they were ordered to give up all their other titles to be destroyed. By this means it became impossible to distinguish the debts contracted during the Monarchy, from those contracted since the revolution. The whole of the consolidated debt was thus converted into a mass of perpetual annuities of £8,000,000 per annum.

24. At this period the Assignats in circulation were of the nominal value of £151,000,000 sterling. Those which bore the royal effigy and were demonetized, amounted to 22½ millions sterling. They were to be received in payment of taxes till the 1st of January, 1794, and after that to have no value at all. A forced loan of a milliard from the rich had been decreed in May, and this sum Cambon destined to redeem an equal quantity of Assignats. Those who came forward quickly were to be entered as creditors in the great book, for annuities at 5 per cent. By these and other means, it was calculated that the whole amount in circulation would be reduced to 83 millions sterling, by the January following. To raise this forced loan, every commune was invested with dictatorial powers to investigate the incomes of each of its members. The sum of 1,000 francs was allowed as necessary to each

member of a family, all above that was taxed, by an increasing scale of 10 per cent. for each 1000 francs, so that by this means all income above 10,000 francs was absolutely seized.

25. Many persons seeing the fluctuating value of Assignats, had invested their means in shares of Joint Stock Companies, whose profits were supposed to be independent of the depreciation of the circulating medium. To put an end to this rivalry, all Joint Stock Companies were abolished, and all whose funds consisted in shares payable to bearer, or transferable at pleasure. The penalties against buying and selling Assignats, and charging a different price when paid in specie or paper, were greatly increased, and death was decreed against all who kept back from public sale, articles of first necessity, which were declared to be bread, wine, butcher's meat, corn, flour, vegetables, fruit, charcoal, wood, butter, tallow, hemp, flax, salt, leather, drinkables, salted meat, cloth, wool, and all stuffs, except silk. Every trader was ordered to render a statement of his possessions, and domiciliary visits were appointed to verify them, and any fraud was punished with death. Commissioners appointed by each commune were ordered to inspect the invoices, and from them to fix the price, leaving a moderate profit to the dealer, and even if the invoice prices were so high as to leave no profit to the dealer, he must still sell them, at such prices as the purchaser could afford.

26. These measures soon caused an almost entire cessation of trade. Most of the shops in Paris and other towns were shut. The retail dealers had purchased at higher prices than the maximum, and were speedily ruined. Moreover, the maximum only applied to them. There was none for any of the preceding stages of the manufacture, or transport. They, therefore, either shut up their shops altogether, or only exposed for sale their goods of the worst quality at the maximum, and reserved the best for those who came to buy them in secret, at their real value. Where formerly there had been so much life and animation, there was now nothing but a sepulchral silence, and the shopkeepers barricaded their doors, ready to escape by the back at a moment's notice, on the appearance of the revolutionary commissioners.

27. The populace was seized with fury on seeing the natural result of these measures, and besieged the legislature for new and more rigorous laws to compel the dealers to continue their trade. The meat was diseased, and all other sorts of provisions were increased in quantity and weight, by the most abominable adulterations. Pressed by this external force, the Convention was compelled greatly to extend the laws of the maximum, so as to go back to the raw material. The prime cost of all articles was fixed on the basis of 1790, with a small profit allowed on each operation. Every dealer who had been in business a year, and had left off or diminished his trade, was declared suspected, and thrown into prison. Consumers were only allowed to buy from retailers, and these from wholesale dealers, and the quantity which each might purchase was fixed by law, and it was only obtainable by tickets, delivered by the Revolutionary Committee.

28. The loans levied with such terrible severity, brought in large contributions, and with the

other sanguinary laws, respecting trafficking in Assignats, nearly restored them to par for a short period at the close of 1793. Moreover, it was enacted that concealed gold, and silver, and jewels, should belong—one half to the state, and the other to the informer, consequently the very possession of specie made them suspected. These circumstances made it reappear in circulation for a short time. But all these efforts were vain. Production almost ceased, and at length in February, 1794, Paris was obliged to be put on an allowance of meat. The quantity fixed was seventy-five oxen, 150 quintals of mutton and veal, and 200 hogs a day. At first no one was allowed to have more than half a pound of meat every five days, and soon afterwards, the Convention decreed a general fast for six weeks, with regard to meat. Meantime the creations of Assignats continued with unabated rapidity. By May, 1794, there were nearly six milliards in circulation, after deducting those which had been returned and destroyed. In June, a fresh issue of 1,105,000,000 was decreed; and, although the property they were based upon, was estimated at 15 milliards, the Assignat had now fallen to the twelfth part of its nominal value.

29. At length, after the destruction of Robespierre and the reign of terror, the maximum could be maintained no longer, and was abolished. But the question of the depreciation of the Assignats still remained, and anxiously engaged the attention of government. Sales of public property, forced loans, and a demonetization of the paper were all attempted, with equal ill success. Lotteries with fabulous premiums, and no risks, tontines, and all sorts of plans were devised to diminish the quantity of the paper. Prices being released from an arbitrary law, sprung up to their natural level. But the enormous expenditure constantly required fresh issues, which far overbalanced any efforts made to reduce them. Johannot, the Minister of Finance, at last proposed the only possible remedy, to return to specie as the only measure of value, and to reduce the Assignats to their value in specie. But the Convention rejected the proposition from a Republican horror of specie, which was supposed to have ruined paper; and, because the English having so much, were supposed to be able to make the Assignats vary at pleasure. Jean Bon St. André then proposed to adopt corn as the standard, so that any person who owed rent or taxes to the amount of 1,000 francs, at a time when a quintal of corn sold for ten francs, was to pay the value of 100 quintals in Assignats. This proposal was rejected, as corn was then at four times its usual price, and several other plans were also rejected. At last it was decreed that any one might have the national domains at three times the price in Assignats, at which they were in 1790.

30. The extraordinary fluctuations in the value of the Assignats produced a vast amount of speculation, or *agiotage*. In the space of an hour the price sometimes varied from 150 to 210 livres for the *louis d'or*. The repeal of the law of the maximum produced similar speculation in other articles. Every one bought and sold bread, meat, grocery, oil, vegetables, &c., and the garrets and cellars were filled with goods and eatables, in which every one speculated. White bread sold

at 25 or 30 francs the pound. People went and bought up not only the actual produce in the country, but even the standing crops, and herds of cattle, in order to speculate in the rise of prices. In the meantime the national domains had been put up for sale as decreed,—namely, at three times in Assignats their price in 1790. Hundreds of offers poured in. For one property 360 offers were made, for another, 500. This great success, however, made the Convention believe that they were throwing away the property at a loss, and the decree was repealed.

31. Having thus abandoned the only plan which had hitherto seemed to promise success in reducing the depreciation of the Assignat, it continued to get worse. The Convention then hit upon another plan. They assumed it as a principle that the value of the Assignat must depend on the quantity in circulation. Thus, if an article cost one franc when there were 2,000,000,000 in circulation, it must be worth two francs, when there were 4,000,000,000, and three when there were 6,000,000,000, and so on. A scale was made taking two milliards as the basis, and it was decreed that in all payments in Assignats there should be added one fourth for every 500,000,000 in circulation. But the government were unable to apply this scale to all transactions. It was first adopted in the payment of taxes and their arrears. It was promised to the public functionaries when their numbers were reduced, and the creditors of the state, when the taxes should admit of their being paid in the same scale. The landowners in the Provinces were the only ones who were able to make their tenants pay according to the new scale. In May, 1795, the national property was estimated at 16 milliards, the Assignats created at nearly 12 milliards, of which only 8 milliards less 140,000,000 were in circulation. The sales of the national domains having been put a stop to, there was nothing to check the depreciation of the Assignats. In a few months the issues increased from 12 to 29 milliards, and, notwithstanding the numbers which were returned and cancelled, there were 19 milliards in circulation, or in nominal value, £760,000,000 sterling. The public functionaries could no longer live upon their salaries, and resigned. One-third of the army deserted. When the Directory entered upon their functions in November, 1795, at the Luxembourg, there was not a piece of furniture in it. The keeper lent them four straw chairs, a three-legged table, and an inkstand. They had the foresight to bring with them a writing desk, and letter paper; there was not a farthing in specie in the treasury, and the only means of payment in the morning were the Assignats which were printed during the night. Such was the condition to which a government entrusted with almost unlimited power of creating paper money was reduced to!

32. The Directory devised a plan of raising the value of the paper by liquidating it at one-thirtieth of its value, it having in reality fallen to almost the 300th part of it. This plan, however, was rejected by the Council of the Ancients. They then proposed a forced loan of 600 millions in real value, either specie, or Assignats at their current value. This was adopted, but had no better success than the former plans, and in 1796 the issues amounted to 45 milliards, and a milliard in paper was only reckoned equal in reality to a

million in specie, though the quotations never reached that depression. That is, the Assignat had in reality fallen to the *thousandth* part of its nominal value. What an admirable commentary upon the wisdom of the theory upon which they were founded, that if they only represented some article of solid value like land, their value could never fall below that of gold and silver!

33. Some idea of the terrible fluctuation in the value of property may be formed when we observe the rapidity of the fall in value of the Assignat. It was at par for a short time at the end of 1793, that is, the louis d'or was at 25 paper livres. During 1794 and 1795 it went on depreciating till, at the end of August, the louis d'or was worth 1,020 paper livres. During September it rose gradually to 1,200 livres; during October, to 3,600 livres, at which level it remained during November. In December it rose to 5,100; in January, 1796, to 5,400; and in February to 8,600. But these are merely the highest quotations in each month. It varied several hundred livres in the same day, frequently 500 livres from day to day, and on some occasions 1,000 livres. As a specimen, we may say that on the 23rd October, 1795, the louis d'or was quoted at 1,690 livres; on the 26th, at 2,060; on the 28th, at 2,750; on the 30th, at 3,650; and on the 31st at 2,600. The prices of commodities followed the same fluctuations. In two months the prices of coffee, &c., rose tenfold. Even in August, 1795, an ordinary octavo volume sold for 375 francs.

34. The Directory at length saw that it was necessary to do something effectual to bring the ordinary transactions of life from being mere gambling. The process of obtaining land for Assignats was long and tedious, and it was determined to shorten and simplify it. Accordingly, a new species of paper was devised, which were named *territorial mandates*. The Assignats were secured on some particular estates, and there was consequently much difficulty in appropriating them. The mandates were created at the rate of 30 to 1, and every domain was to be delivered without sale by auction, or any other formality than a mere *procès verbal*, to any one who tendered in *mandats*, a sum equal to twenty-two years purchase at its price in 1790. *Mandats* to the amount of 2,400,000,000 were immediately created, and domains to that amount appropriated to their payment. At the rate of 30 to 1 it was computed that the quantity of Assignats in circulation were equivalent to 800,000,000 in *mandats*. Six hundred millions more were appropriated to the public service, and 1,200,000,000 were to be deposited in a chest with three keys, to be taken out by decree as they were wanted. It was then ordered that the plates of the Assignats should be publicly broken up, and destroyed, on the 19th February, 1796, in the Place Vendome, which was accordingly done.

35. These mandates were created on the 26th Ventose, or 15th March, 1796, and they were then declared the legal tender of the Republic, and all payments were directed to be made in them. The same laws against selling mandates for gold and silver, as against Assignats were enacted, and to prevent, if possible, speculation in the value of the mandat, the exchange was shut up, just as if, says Thiers, the shutting up of the exchange

could prevent private exchanges from springing up by thousands elsewhere. The immediate necessities were so urgent, that the government were obliged to issue promises of mandates, until the mandates themselves were ready. These promises soon fell to a heavy discount, and the mandates themselves had fallen from 100 to 18 francs the day they were issued, 11th April, 1796. It took some time to make the necessary preparations to effect the sale of the domains, and it was spread abroad that the government would refuse to part with them, which depressed the mandates still more. The sales were, however, at length commenced, purchasers flocked in, and the mandat for 100 francs, which had fallen to fifteen, gradually rose to thirty, forty, and sometimes even to eighty francs, and some hopes were entertained that the financial condition would be ameliorated.

36. But these hopes were illusory. The existing issues of Assignats when the mandates were created, were reckoned equal to 800,000,000 of mandates. But 2,400,000,000 had been created. Consequently, the issue of mandates was only the Assignats under another name and form, and to issue that amount of mandates was merely to triple the old circulation of Assignats. The inevitable consequence followed, the mandat soon fell to the same discount as the old Assignat. People refused them altogether in private transactions, and resorted to barter. By getting rid of such a circulating medium commerce began to regain some activity.

37. The continued issues of mandates soon caused them to fall to the same discount as the Assignats, and as they represented thirty Assignats, it followed that the latter had fallen to nearly the 30,000th part of its nominal value. The government then refused to part with the national domains at the depreciated value of the mandat. In the meantime the destruction of the value of all articles had allured foreigners to come there to buy them at a low price. The unhappy proprietors were too glad to sell their most costly possessions, their pictures, statues, wines, and precious stones, for specie. Thus, while the excessive issues of paper had driven specie out of the country, the low prices of all sorts of goods brought it back again, as is always the case in every financial crisis.

38. This second species of paper currency having thus hopelessly failed, the government were at last driven to the only resource that remained. On the 16th July, 1796, the paper currency was destroyed at a blow. It was decreed, that thenceforth any one might make what bargains he pleased, and in what currency he pleased. That the mandates should be taken in future only for their value in specie, and that this value should be published daily at the treasury, and the remainder of the public domains were ordered to be sold for mandates, at their current value.

39. Thus, at length the whole system was destroyed and specie immediately reappeared in circulation, and in the space of about twelve months was entirely and permanently restored to the country, without the least disturbance or inconvenience. The maximum was swept away. The new revolutionary proprietors settled down quietly with such as remained of the old ones, the

freedom of commerce was restored, and social order returned, and this paper currency, after having effected a greater revolution in property, and having been the cause of greater misery, than was ever concentrated into so small a space of time, finally disappeared.

40. Such is merely a short, and, in many respects, a very imperfect sketch of the actual effects of one of the most subtle and plausible theories of currency, but one which has numerous believers at the present day. Nor is it possible to shew its radical error without adopting the fundamental conception of the nature and functions of a currency which we have proposed elsewhere. (CURRENCY. MONEY). We may observe that the speeches of those members of the Assembly, who supported the issues of the Assignats, and who scouted all ideas of the possibility of their depreciation, were received with enthusiastic applause, while those of the wiser ones, who opposed them, and clearly predicted their mischievous consequences, were received either with a dead silence, or disapprobation. So utterly unfit is a popular assembly to decide upon a scientific question. Nor are we to attribute this only to the revolutionary assembly of France. All the phenomena, only on a diminished scale, exhibited by the Assignats, were reproduced twenty years later, by the paper issues of the Bank of England. And the very same fallacies, which found so much favour in the French Assembly, were reproduced, and found equal favor in our own House of Commons in 1811 and 1812. Nay, the House of Commons greatly out-did the French Assembly in absurdity, for it came to a solemn vote that when it required a £1 note and seven shillings to purchase a guinea, that the £1 note was still equal to twenty shillings, whereas the depreciation of the Assignat was always acknowledged, and deplored in the Convention, and strenuous exertions were made, however unsuccessfully, to bring it to par. We shall, in other parts of this work, bring forward other instances of this theory of currency having been adopted, with similar results.

ASSOCIATION. See COMPANY.

ASSURANCE. See INSURANCE.

ATELIERS NATIONAUX.—We have it from the highest authority that the poor will never cease from off the earth, and, in truth, in all densely peopled countries, the question of the poor is one of vital importance. No institutions, however ancient or excellent in theory, no property can be secure in a country where there is a great, fierce mass of starving populace. There is no surer cause of revolution than physical misery. The question of the poor has been of transcendent importance in England, ever since the days of Henry VIII., and, although the evils of the old Poor Law became at last intolerable, and unquestionably greatly aggravated the very evil they were intended to relieve, there can scarcely be any doubt that it contributed greatly to remove one chief cause of political turmoil. It was certainly a heavy price to pay, but it is not easy to see how the country could have escaped a revolution, if a large mass of starving pauperism had been added to all the other inflammatory elements during the fever of the Revolutionary war. That

all laws of this nature strictly belong to Socialism, and are, therefore, violations of Political Economy, is true, but in this case it is a choice of evils, and some sort of a law of this kind seems to be absolutely essential for the peace of society. The question then seems to be, to devise the least obnoxious form of a necessary evil.

2. The question of the poor has been of not less importance in France, than in England, especially since the revolution of 1789, when the religious establishments were swept away, and no efficient substitute, like that of the English Poor Law, was provided. The mode in which the question has been dealt with in that country, is an example of the immense practical consequences that may flow from a slight difference in two expressions, both springing from the same fundamental idea.

3. Although any one capable of reasoning must know, that the unequal distribution of property is a matter of inevitable necessity, and cannot possibly be avoided, yet, at any given time of great public distress, it is sure to excite the strongest jealousy in the minds of the starving poor, and be regarded by them as iniquitous. It is useless at such times to say, that if an equal division were made of all the property in the country, by the end of a week, the able, the strong, and the industrious, would have got possession of the property of the idle, the profligate, and the weak, and the differences would soon be as great as ever. What they want, at such times, is instant relief, and if it is not given them, the certainty is that they will seize it by force.

4. It has then been found absolutely necessary to concede this point, that all persons in this country have a legal right to subsistence, and that the maintenance of the people is the first charge upon the industry of the nation. But the right of subsistence draws with it the correlative right of demanding work in exchange for this maintenance.

5. So far, therefore, it is impossible to deny that the English law and the Socialist doctrine proceed *pari passu*. The difference consists in the turn of a sentence. The Socialist theory demands that the work provided for the workmen shall be such as they are accustomed to, that is, it shall be such as the *recipient* pleases, the principle of the English law is, that it shall be such as the *giver* pleases.

6. The old system of Poor Law, with its system of parish allowances, &c., made a very near approach to the Socialist doctrine; (POOR LAW). But the essential distinction between the New Poor Law and the Socialist theory consists in this, simply that the work provided for the recipient of relief is such as the giver pleases, and not such as he pleases.

7. It is stated by M. M. Cocquelin and Léon Faucher in two valuable articles on the *Ateliers Nationaux* and the *Droit au Travail*, in the *Dictionnaire de l'Economie Politique*, from which much of the following information is derived, that so far back as 1545 edicts had been issued directing the establishment of public workshops for the unemployed. And ordinances were issued in 1685, 1699, and 1709, for the regulation of these workshops. Louis XVI. exerted himself to extend this mode of relief throughout the kingdom, and endeavoured to encourage the establishment

of public works in each province, during the dead season, by privileges.

8. In 1790 the public troubles caused the closing of numerous private establishments, and threw an immense number of workmen out of employment. Vast public workshops were opened in the neighbourhood of Paris, in which the men were employed on earthworks, and women and children in spinning. Beside that, 30,000 francs were put at the disposal of each department, to employ the poor, on a similar plan to that adopted at Paris.

9. The Constitution of 1791 decreed, among the guarantees given to the citizen, "that there should be created and organized a general establishment of public assistance to bring up foundlings, to relieve the infirm poor, and to furnish work to able-bodied poor, who could not procure it for themselves." But this never could be efficiently carried out. Notwithstanding the assistance that was given, the misery of the poor went on increasing, and more and more workshops were every day closed.

10. The Constitution of 1793 was more explicit still in its declaration. It said that "public relief is a sacred duty. Society owes subsistence to unfortunate citizens, either in procuring them work, or in assuring the means of existence to those who are not in a condition to work." This abortive Constitution maintained the doctrine that the State was bound to find enough work for all its members, as should enable them to support themselves.

11. This doctrine was dropped out of the succeeding constitutions, but the *Ateliers de charité* survived; and the law of the 24 Vendémiaire, year XII., contains very minute and precise regulations for them, but it had no greater success than the former attempts. Babeuf drew from it his principle of the community of goods; and it sank deep in the minds of the people, and has formed one of the principal articles of the Socialist creed. M. Léon Faucher quotes from Fourier the following passage, which contains the enunciation of the principle of the *droit au travail*. "Scripture tells us that God condemned the first man and his posterity to work with sweat on their brows; but he has not condemned us to be deprived of that work on which our subsistence depends. We can then, in accordance with the rights of man, request philosophy and civilization not to deprive us of that resource, which God has left us at the worst, and as a chastisement; and to guarantee to us the *right, and the kind of labor*, to which we have been brought up. We have now passed the time to cavil at the rights of man, without thinking of recognizing the most important of all, without which the others are nothing. What a shame to the nations who think themselves clever in social politics! Ought one not to dwell upon such a shameful error, to study the human mind and the mechanism of society, which gives to man all his natural rights, of which civilization cannot guarantee, or admit the principal one, the *droit au travail*?"

12. This newly discovered right of humanity, however, made little progress in public opinion, beyond a small school, for a considerable time, which all its advocates acknowledge to be absolutely incompatible with the rights of property and the existing organization of society. At the

revolution of 1830 these *Ateliers de charité* were tried again, with similar results.

13. During this time, this expression of the *droit au travail* had been working its way in the public mind. Several persons, whose names are more or less notorious, Considerant, Cabet, Proudhon, St. Simon, Louis Blanc, had been busying their brains with schemes to ameliorate the organization of society, and when the catastrophe of 1848 took place, brought about in a great measure by the sufferings from want of work of the populace of Paris, the Socialist party had a grand opportunity of trying the practical effects of their ideas.

14. The revolution of 1848 proclaimed the *droit au travail*. On the 26th February the following decree was placarded on the walls of Paris:

"The provisional government of the French Republic, engages to guarantee the existence of the laborer by work.

"It engages to guarantee work to all the citizens.

"It acknowledges that the workmen ought to associate among themselves, to enjoy the legitimate profits of their work."

15. M. Louis Blanc declares that this decree was forced upon the provisional government by a workman, deputed by the people to insist upon the recognition of the principle of the *droit au travail*, by the Government. Some, however, shrewdly suspect that this alleged workman was nothing more than an agent of some of the provisional government, to coerce their unwilling colleagues. Be that as it may, the "organisation du travail" was decreed. A decree of the 28th February says,

"Considering that the revolution made by the people, should be made for them.

"That it is time to put an end to the long and unjust sufferings of the workmen.

"That the question of work is of great importance.

"That there is none higher or more worthy the attention of a republican government.

"That it belongs above all to France to study deeply, and resolve a problem now proposed to all the industrial populations of Europe.

"That it ought to resolve, without the least delay, to guarantee to the people the legitimate fruits of their work.

"The provisional Government of the Republic decrees:—

"A permanent commission, to be called the *Committee of the Government for the workmen*, will be immediately named, with the express and special duty of attending to their condition."

16. In accordance with this decree, a committee was appointed, with M. Louis Blanc at its head, and installed in the Luxemburg; to carry out the Utopian scheme of finding work for every body. But one result could ensue. It aggravated the misery, distress, and disorganization of labor tenfold. The inflammatory proclamations that emanated from the Luxemburg, destroyed all the remaining relations that existed between the private masters and their workmen. In a great number of establishments, masters and workmen had come to a voluntary agreement, as to the quantity and hours of work, and the rate of wages. The reckless folly of these charlatans upset all

these arrangements. They were forbidden by decree to enter into such engagements. Nor did their meddling stop there. They not only regulated the forms in which work was to be conducted, and paid for, but also its hours. A decree ordered that a day's work should not exceed ten hours, in all trades throughout France. Having thus disordered all the relations between capitalists and workmen, they threatened to appropriate all the manufactories to the use of the State. The masters and contractors, in despair, requested the Government to take all their works off their hands. The committee told them they would, and pay them a large indemnity; but as they had no means of doing so at that time, it must be taken out of the resources of the future. The State would give them obligations bearing interest, secured on the value of the establishments given up, and payable in annuities, or by instalments.

17. The government, by thus meddling with private contracts, soon put all social order in danger. It wanted to appropriate to itself all banks, all credit, all insurance companies, and railroads. Instead of a remedy being provided for the existing distress, it was aggravated a thousand fold. Instead of the existing want of work being provided for, a universal stoppage took place. The Government were then driven to organize the *Ateliers nationaux* in which the State was to be the universal employer, and all the beautiful theories of communism were to be inaugurated. All employments were to be regulated on the same scale, and all wages were equal. Of course the whole mass of workmen and paupers rushed to them. The right of labor, if claimed as a right, was no where considered as a duty. Every one was admitted indiscriminately. The numbers were never exactly ascertained. But while they did not exceed 6,000 in March, they were considered to be not less than 110,000 in June, when the whole resources of society being fast devoured, they were obliged to be broken up at the expense of the terrible insurrection of June; a heavy and conclusive price to pay for the solution of an economic question.

18. It might have been thought that with this terrible experience before their eyes, the French assembly would have been effectually cured of this fatal doctrine of the *droit au travail*, and yet on the 20th June, 1848, only three or four days before one of the most sanguinary civil combats on record broke out, the constitution read from the tribune by M. Marrast, sanctions and confirms in the most explicit terms the doctrines of the Luxembourg. Article 7 says, "The *droit au travail* is that which every man has to live by, his work. Society is bound by all the productive and general means it can dispose of, and which will be organized hereafter, to furnish work to able bodied men who cannot get it for themselves otherwise." Article 9 says, "The right of relief is that which belongs to foundlings, to infirm or old persons, to receive from the State the means of existence." And Article 132 says, "The essential guarantees of the *droit au travail* are, the freedom of labor, voluntary association, equality in the relations between masters and workmen, gratuitous instruction, professional education, provident institutions, and those of credit, the under-

taking by the state of great works of public utility, for the purpose of employing the persons thrown out of work during a stoppage."

19. The committee on the constitution adopted the doctrines of the right of instruction, the *droit au travail*, and the right of relief; that is, of the universal meddling of the State in all the concerns of private life. Nay, after the events of June, eight bureaux out of fifteen admitted the doctrine of the *droit au travail*. Public opinion, however, was roused by this incredible folly, and some modification was made in the extreme terms. The reporter to the commission, M. Marrast, said, (we quote M. Léon Faucher,) "This expression (the *droit au travail*) has appeared equivocal and dangerous; some fear that it is only a premium upon idleness and debauchery, some fear lest the legions of workmen, giving to this right a meaning which it does not bear, should arm themselves as by a right of insurrection. To these important objections they add another more considerable; if the State engages to furnish work to all those who want it from any cause, it ought to supply to each the kind of work he is accustomed to. The State would then become a manufacturer, a merchant, a great or small producer. Charged with the necessities of all, it ought to have a monopoly of all industry. Such are the terrible things they see in our expression of the *droit au travail*, and because it can bear meanings so contrary to our intention, we wish to make our intention more clear and precise, by substituting for the right of the individual the duty imposed upon society. The form is changed, the thing remains the same."

20. The modification proposed did not touch the nature of the thing at all. The clause stood thus in the amended constitution: "Society is bound to protect the citizen, in his person, his family, his religion, his property, his work, and bring to every one's door the education which is indispensable to every one. It owes subsistence to necessitous citizens, either in procuring them work within the limits of its resources, or in giving, in the event of his family not being able to do so, the means of existence to those who are not in a condition to work."

21. Many of the speakers in the debate pushed the doctrine to its extreme limits, and even its adversaries scarcely ventured to call it in question. The opposition to it was embodied in an amendment by M. Blais-Bizoin, in these words: "The Republic recognizes the right of all its citizens to existence by labour, and to relief," but only 187 out of 783 could be found to support this amendment. After a long combat of words the doctrine finally adopted was thus expressed: "The Republic is bound, by a fraternal assistance, to insure means of existence to necessitous citizens, either in procuring them work, within the limits of its resources, or in giving during the inability of the family, relief to those who are not in a condition to work."

22. After giving these details, we shall not further pursue the account of the Socialist doctrines here, which will be fully considered hereafter—(SOCIALISM). We shall merely say a few words with reference to the *droit au travail*. We must never fail to remember in criticising the errors of our neighbours, that the very same false principles infected the legislation of our own country till very recent times. The old poor law

with its system of parish allowances, making up the wages of labour to a certain arbitrary amount, out of the property of the ratepayers, was the very same doctrine, and was fast devouring the property of the country. And if it did not produce the same appalling results as it did in France, the reason appears to be that in England it was chiefly applied in agricultural districts, where the population were scattered, and there was more control over them, and they were not able to combine so readily as the French workmen. The poison, therefore, was more diffused. But in France the doctrine was applied to large masses of town workmen, who were all concentrated into one body of inflammable materials, without the possibility of exacting any work from them.

23. Moreover the system of protection, which so long prevailed in this country, was only another form of Socialism. The *droit au travail* is the right of the workman to have sufficient work and wages provided for him by the State, out of the means of society,—it is the Socialism of the workmen. The system of protection is the right to have remunerative profits provided for the producer by law, out of the means of society,—it is the Socialism of Capitalists. All these are parts of one vicious circle. In fact, Protection and Socialism are incompatible with the rights of property. If manufacturers or agriculturists can compel me to pay ten shillings extra for any commodities I may require, beyond what I could get them elsewhere, in order to provide them with arbitrary profits, what difference in principle is there between that and the workman who maintains the *droit au travail*, when I must employ him and pay him wages when I don't want anything he can produce? The two things are identical.

24. In fact, if the *droit au travail* is an admissible principle at all, it cannot be restricted to handicraftsmen. If the shoemaker is entitled to call upon the State to provide him with shoes to make, when there are no feet to wear them; if the mason is to call upon the State to employ him to build houses, when there is no one to live in them; if the tailor can call upon the State to pay him to make endless coats, when there are no backs to be covered—why, the same law is good for the lawyer, the doctor, the artist, the author, the editor. Every man who chooses to adopt the law as a profession, should have a certain number of briefs deposited by the State every morning upon his breakfast table; every painter should be commissioned to paint endless Madonnas; every sculptor should be employed to produce perpetual Apollos; every author should have a certain number of copies of his work ordered by the State, which criminals, perhaps, might be sentenced to read; every editor should have a certain number of copies of his paper ordered by the State; though it might be somewhat of a puzzle to apply this rule to medical men, as it is not easy to see how the State could provide patients at will.

25. But it may be said that the English law admits the right to relief, and the duty to labor, or, in fact, to demand labor. Is not this then a form of Socialism? What is the difference between that and the *droit au travail*?

26. It must be admitted that the English principle of allowing the right to demand labor and relief, is a form of Socialism, which it has been

found necessary to permit, in order to avoid greater evils, and we may point out what is the essential distinction between the English and French *droit au travail*.

27. The French doctrine demands that work shall be found for the workmen of the nature they are accustomed to. Now, why is it that the workmen in any particular trade are in distress? It is because there is not a sufficient demand for their labor. In fact, because that species of labor is *overabundant*. All commercial difficulties arise from *over production*, in one form or another, and never from *under production*. And all commercial difficulties may be reduced to this general expression, that traders have provided, or got on hand, too much of some commodity than is suitable to the circumstances of the time. And this is equally true, whether it arises from incautious speculation in that particular article, or whether it arises from some great deficiency in some great staple article, as food for instance. Because, if through a great deficiency of food, the price of it rises very high, and takes away the custom from other articles of commerce, which lowers their price, and injures their holders, still the same general expression is true, that they are brought into trouble by having *more* of certain commodities, than is suitable to the circumstances of the time. And this is *over production*, no matter from what cause it arises. To provide more of any article, then, that is already over abundant, can only aggravate the evil. What is really wanted is more demand. Consequently, the only result which those who produce, by extraneous assistance, more than is wanted, can effect, is to aggravate and extend still further the area of suffering, and to reduce those who can maintain themselves, to the same state as those who are already dependent on the public.

28. Consequently, if the right to labor be admitted, which it is in this country, it is indispensably necessary that the work provided should be of some nature wholly different from the workman's usual occupation, and, indeed, it ought to be work which does not come into competition with any independent workman. These remarks apply, of course, chiefly to the ordinary trades, where articles are exposed to sale. The least exceptionable form of public works, are those which increase the demand for work, but do not increase the quantity of any article for sale. But even these are open to the grave objection of attracting large bodies of men into them, much beyond what would naturally be the case, if all employments were left to the natural law of supply and demand. And then having thus attracted these large bodies of men, unless the artificial stimulus is constantly maintained, they are full of peril. There can be no doubt that most of those marvellous improvements in Paris, which have been effected within the last few years, spring from the stern necessity of finding some employment for the people. They are, in fact, in many respects only a substitute for a poor law. When some English are somewhat a little too inclined to be enamoured with despotism, and grumble at the slow and cumbrous movements of a constitutional machine, they may perhaps remember the perilous condition that exists, of maintaining these multitudes by new expedients. (POOR LAWS. SOCIALISM.)

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Principles of Political Economy; or, the laws of the formation of National Wealth developed by means of the Christian law of Government. London, 1840.

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ATTWOOD, THOMAS.—A member of a Birmingham banking firm, who was of strong radical principles, and represented Birmingham for some time, in the Reformed Parliament. He was a man of considerable ability in many respects, but chiefly remarkable for some extremely extravagant and chimerical opinions on the Currency Question. It appears that he inoculated some of his fellow townsmen with some of them, but as they have never made any progress in public opinion, and are utterly visionary, it would be mere waste of time to enter into any account of them. Nothing but his business and position as a banker, could ever have given them the least importance, and it is only one example among thousands, that practical men are frequently the most visionary of dreamers.

Observations on Currency, Population, and Pauperism. 1 Vol. 1818.

Examination before the Committee of the House of Commons on the Bank Charter. 1832.

AUBERT DE VITRY, FRANCOIS JEAN PHILIBERT.

—Born at Paris, 2nd April, 1765. He began to study law, but abandoned it for politics. He attached himself to the Jacobins, for which he had to fly. He retired to Caen, and joined the Girondins; he was afterwards arrested and brought to Versailles. Under the Directory he obtained diplomatic employment, and he afterwards held several appointments in the ephemeral kingdom of Westphalia. His literary works are very numerous, comprising frequent contributions to various periodicals and encyclopædias. He opposed some of the doctrines of Malthus. He afterwards fell into great poverty, and though he received a small pension from government, he died in a public hospital, in June 1849.

Recherches sur les vraies causes de la misère et de la félicité publique; ou, de la population et des subsistances. Paris, 1815.

Essai sur les colonies militaires de la Russie. Paris, 1826.

Essai sur l'Algérie, considérée comme colonie, et sous le rapport de la politique intérieure et extérieure de la France.

Essais d'économie publique et sociale.

AUBERT DU PETIT-THOUARS.—Member of the Council-General of the Department of the Indre-et-Loire.

Plan d'une égale répartition de l'impôt foncier entre les départements, les arrondissements, les communes et les contribuables, et moyen de reconnaître le revenu territorial de la France, et la quotité de l'impôt relativement à ce revenu. 1802. G.

AUBUSSON, LE VICOMTE D'.

Modèle d'un nouveau ressort d'économie politique; ou, Projet d'une nouvelle espèce de banque, qu'on pourra nommer Banque rurale. Amsterdam, 1772. G.

AUCKLAND, LORD. See EDEN, WILLIAM.

AUDIFFRET, MARQUIS D'.—Was born at Paris, 10th October, 1787. He filled several subordinate offices in the Financial Department of the Government, and was appointed President of the Court of Accounts in 1830, and Peer of France in 1837, and President of the Commissioners of the Sinking Fund. He organized and effected great reforms in the system of public accounts.

Examen des revenus publics. Paris, 1839.

Système financier de la France. Paris, 1840.

Le Budget. Paris, 1841.

La libération de la propriété, ou Réforme de l'administration des impôts directs, et des hypothèques. Paris, 1834.

La crise financière de 1848. Paris, 1848.

Réforme de l'administration financière des hypothèques. Paris, 1851. G.

AUDIGANNE.—Born at Antwerp in 1814. Head of a department in the Ministry of agriculture and commerce. He has published in the *Revue des Deux-mondes* several articles on Political Economy.

De l'organisation du travail. Paris, 1848.

L'industrie Française depuis la révolution de Février. Paris, 1849.

Les ouvriers en famille. Paris 1850. G.

AUDOUIN, FRANCIS XAVIER.—Born at Limoges in 1766. Vicar in 1791 of a parish in Limoges, and an ardent revolutionist, he was appointed a commissioner to La Veuclée to collect information regarding the revolt. He was a fiery Jacobin, and particularly fierce against England. He afterwards held several official appointments, and died 22 July, 1837.

Du Commerce maritime, et de son influence sur la force, et la richesse des Etats. 2 vols. Paris, 1800.

AUDRA, JOSEPH.—Born at Lyons, 1714. Became an ecclesiastic and Abbé, and Professor of History at Lyons and Toulouse. He was very intimate with Michaudière, the intendant of Lyons, and with his assistance composed his Inquiry into the population of Lyons, &c., which was published in the name of Messance, the secretary of the Intendance. He published many Historical works which gained the approbation of Voltaire, and D'Alembert, but which excited much public clamor. Brienne, the Archbishop, defended him as long as he could, but the opposition was so fierce, that he was obliged to remove him from his office. Audra died of grief, 17 September, 1770.

Recherches sur la population des généralités d'Auvergne, de Lyon, de Rouen, &c. Paris, 1766.

AUFFRAY, JEAN.—Born at Paris, in 1733. He was one of the Economists, and an intimate friend of Dupont de Nemours, Baudeau, and others. He commenced his career as an author at 20, by maintaining the proposition that printing did more harm than good to literature. In 1767 he was elected a member of the Academy of Metz, and in 1769 of that of Marseilles. He died in 1788.

Le luxe considéré relativement à la population et à l'économie. Lyons, 1762.

Ideas patriotiques sur la nécessité de rendre la liberté au commerce. Lyons, 1762.

Discours sur les avantages que le patriotisme retire des sciences économiques. Paris, 1767.

Considerations sur les manufactures dans les villes maritimes et commerçantes. Paris, 1768.

AUGER.—No biographical traces of this writer are to be found.

Mémoires pour servir à l'histoire du droit public de la France, en matière d'impôts. Brussels, 1779.

Barbier pronounces this to be a very valuable work.

Traité sur les tailles, et les tribunaux, qui naissent de cette imposition. Paris, 1788.

AUGIER, MARIE.—Was, in 1848, one of the Editors of the *Réforme*.

Du crédit public, et de son histoire depuis les temps anciens jusqu'à nos jours. Paris, 1842. G.

AVRIL, J. B.—President of the tribunal of commerce of Nevers.

Question du Libre-échange, mise à la portée de toutes les intelligences. Paris, 1847.

AVRIL, VICTOR.—An advocate at Mézières. *Histoire philosophique du crédit.*

La communauté c'est l'esclavage et le vol. Paris, 1848.

AXIOMS AND DEFINITIONS.—We shall treat of Definitions and Axioms together, because they are so inseparably associated that, to consider them in distinct articles, would involve much repetition.

1. The transcendent importance of the subject will, we fear, detain us at considerable length, but yet not at one by any means sufficient to do adequate justice to it. Because it is one that affects the very nature itself of Political Economy, it determines its rank and position among sciences in general, and its method of treatment, and the degree, and the extent of the certainty of its results. And we shall have to do this at greater length, because we have the misfortune to be at entire variance on every one of these points, with the author of the latest and most extensive treatise on the subject in the English language—Mr. John Stuart Mill.

2. It is perfectly well known, that each of the physical sciences, which have attained such great magnitude and extent in modern times, and which have produced such admirable results, have been brought to their present state of perfection by extraordinary labour being bestowed in ascertaining and settling their first elements—namely, their Definitions and Axioms, or accurate conceptions and expressions of the objects they treat about, and the general laws which regulate their relations to each other. Every one of these wonderful sciences has been brought to their present state by obtaining a few fundamental conceptions, which have been uniformly adhered to throughout their whole range, and anything inconsistent with them has been invariably rejected.

3. But it has not always been so. These beautiful studies were once in a very different

state. The modern plan of teaching a science only in its existing state, no doubt imparts a vast amount of actual knowledge. But as a mental discipline, or as a matter of education, the History of Science is of enormous value, and we venture to think, is far too much neglected. Many persons can "cram" up a considerable amount of actual knowledge, and yet derive very little benefit. But to study the History of Ideas on the subject, to understand clearly the principles of the different controversies that have been waged, and to comprehend why one set of ideas prevailed over another, is an educational exercise of immense utility, which is almost entirely neglected. Few persons are aware of the wrecks of the fierce controversies which lie buried beneath the calm and placid surface of modern science, like those of mighty armaments below the summer sea.

4. Many persons are apt to think that controversies in Political Economy are mere logomachy, vain and unprofitable disputes about words, and of no real consequence. They are apt to think that the Physical Sciences treat about things, and Political Economy only about words. But those who think so, display a total want of knowledge of the History of Science. The early history of all science is full of controversies about the meaning of words. Many may think that physical science being about things, there is no difficulty in giving a name to what is seen so readily. This is a lamentable error. On the contrary, it almost invariably happens that names get into a science, and acquire a position in it, before any one can tell what they mean. Thus, in Mechanics, the words *Momentum*, *Vis Viva*, *Uniform Force*, *Accelerating Force*, and several others, acquired a position in it, before any one could tell what they really meant, and all the philosophical world of the day was engaged in the wordy war to settle their meaning, and obtain true definitions. Consequently it is an entire error to suppose that controversies in Physical Science are not about words. On the contrary, it was in the true definitions of words that the whole foundation of the sciences were laid. And it was just because all the great mathematicians of the day so thoroughly understood the supreme importance of ascertaining the true meaning of words, and fought out the meaning of each separate one with such perseverance, that they at length arrived at such an unanimity of agreement, and these controversies have now been almost forgotten. There was a time then, when what are called the exact sciences had not attained that rank. They were once matters of *opinion*, and not of *demonstration*, and they only attained the rank of demonstrative truth, because each separate word, and each separate principle was thoroughly discussed and settled.

5. And why has Political Economy not yet attained the same rank as Mechanics as an exact science? Because the same care has never yet been given to settle its definitions and axioms. Political Economy is now, like Mechanics in its early stages, overrun and infested with words whose meaning has never yet been settled on certain principles, and which are never almost used by any two writers in the same sense, nay, few even of the best writers are consistent with themselves. The men who have cultivated Political Economy are probably of as great natural

ability as those who have cultivated physical science, of course with the exception of a few unapproachable examples. Why, then, have they not come to the same unanimity of opinion as their brethren? The simple reason is that they have not adopted the only means that could by any possibility ensure success, namely, a thorough discussion and settlement of the meanings of words, nay, they have systematically despised it. Now, what the words *Momentum*, *Vis Viva*, &c., were to mechanical science in its early stages, that *Value*, *Currency*, *Capital*, &c., are at the present day to Political Economy.

6. And it is for this very reason that many suppose that Political Economy cannot be made an exact science, because the only means that can make it so have been systematically neglected. Many, however, suppose that there is no use for such a thing; matters will go on just the same, they think, for all the disputes. But the same may be said of physical science; a man may be an excellent seaman and yet be entirely ignorant of the principles which cause his vessel to go in a direction nearly contrary to the wind. But is there no use in the science of Mechanics? So, doubtless, a man may be an excellent banker, and a very successful practical merchant, without any knowledge of Political Economy, and yet is there no use of Political Economy? This science stands to the phenomena of commerce exactly in the same relation that the science of Mechanics does to practical seamanship, &c.; for Political Economy is the science which treats of the laws which regulate the exchangeable relations of quantities, just as Mechanics is the science which treats of the laws which regulate the motion of bodies.

7. Now, adopting this conception of the pure science of Political Economy, we affirm that it depends upon certain fundamental conceptions, or definitions and axioms, exactly as Mechanics does, and that by settling these with as great care as is done in physical science, it may be raised to the rank of an exact science. That it contains an immense body of *demonstrative* truth, and that it is capable of exactly the same kind and degree of certainty as the laws of Mechanics, that is to say, that it may be perfectly demonstrable that such and such effects are due to such and such causes; though it may not be possible to say *how much* of a cause will produce any given amount of effect, which can only be ascertained by experiment.

8. And yet there are writers, of no mean acquirements too, who entirely discourage such a course of proceeding, who consider such attempts as pedantic, and mere waste of time—who would admit that in every other branch of human knowledge clear and precise technical terms are absolutely indispensable, and yet in Political Economy alone, think there is no need of anything of the sort. Now we affirm, that if Political Economy is ever to emerge from the turbid regions of controversy and *opinion* into the serene atmosphere of *demonstration*, it can only be done by Economists laying aside the unhappy idea that controversies about words are unimportant and superfluous, by following the example of their brethren the Physicists, who have cleared their path to such brilliant success, and by bringing their whole force to discuss and settle the first elements of the subject, namely its Definitions and Axioms. And when this is

done, it will be found that Political Economy is a science, as clear, as precise, and as sharply defined, and as capable of being erected into an exact science as any other whatever.

9. Most persons have a kind of dreamy, vague notion that Adam Smith, Ricardo, and Archbishop Whately are eminent Political Economists, and probably class them together, as they would any of the eminent cultivators of any of the exact sciences. But not many, perhaps, except those who have made Political Economy a serious study, are aware that the most irreconcilable differences of principle exist among them. We have shown (PRELIMINARY DISCOURSE) that the constructive part of the *Wealth of Nations* is founded upon two distinct, opposing, and contradictory conceptions of the nature and measure of value. The one in which value is measured by *labor*, the other in which it is measured by *exchangeability*, and these two antagonistic conceptions are intertwined and interlaced throughout the whole course of the work. Ricardo clearly saw the inconsistency of these two conceptions, and that one, at least, must be entirely rejected. Under the name of *Cost of Production*, he has substantially adopted Adam Smith's measure of value by labor, and entirely rejected that of Exchangeability. Thus Ricardo destroyed one half of the *Wealth of Nations*.

10. But Archbishop Whately has shown that Ricardo adopted the *wrong* half of Adam Smith. In the passage quoted in the Preliminary Discourse, it is shewn that Exchangeability is the measure of Value, and not Cost of Production. Thus Archbishop Whately and Ricardo are diametrically opposed to each other. The Archbishop says that Ricardo's work is one "long enigma," from his fundamental error about the measure of value. It is not as if Ricardo had made some great discovery in the subject, and the Archbishop had carried it out, and extended it. But they are absolutely opposed to each other on the very fundamental conception of the subject. For the same man to believe in Ricardo and Whately at the same time is a moral impossibility. The same man could no more believe in them both at the same time, than he could believe in the Ptolemaic and the Copernican Astronomy at the same time, or in the phlogiston and oxygen theory of chemistry at the same time. Whately and Ricardo are antagonistic to each other, not complementary, but contradictory.

11. There is then no possibility of compromise between them. One or the other is totally wrong. Now, as these are no trivial matters, but go to the very root of the subject, Economists ought to argue out the question to the very bottom, and come to an agreement. Physicists would have come to a decision long ago on a matter of such vital importance in their science. But how is the matter to be settled? In the conflict of opinion how are we to decide which is to prevail? We answer that the identical principles which governed the decision in Physical science, will settle the matter in Political Economy. The decision in the matter is to be governed by the well settled laws of *INDUCTIVE PHILOSOPHY*.

12. It has been the fashion lately of a certain class of writers systematically to depreciate the merits of Bacon, and some almost seem to go the length of nearly denying him any merit at all, because it cannot be shewn that the *Novum Orga-*

must have had any direct influence upon the progress of physical discovery. He made no discovery himself, and the progress of physical discovery would have been just as great if he had never written. That these assertions may be very possibly true, does not diminish the lustre of that work in the very least in our opinion. No one can fairly appreciate the merit of that work who is not aware of the absurdity of the grounds upon which the established opinions of his day on physical science rested. Bacon saw through this, and discerned the weakness of the grounds of the current belief with a clearness and penetration truly surprising. One reason perhaps why he may not have received his due share of credit, is that he over-estimated the power of his Logic, and supposed that by its means discoveries could be made, so that almost all minds could be brought nearly to the same level, and make discoveries as equally as they could draw circles by compasses. That he entirely failed in this is true, and it is probable that his failure in that instance has had some effect in making his real merits less thought of than they deserve. But he failed in this instance, by not paying attention to his own rules. For he has laid down that the conceptions of a science are to be framed with exactly the same care as the axioms. And he fell into exactly the same error himself, as he had charged upon the Aristotelians, namely, considering Logic as an instrument of discovery. Whereas, the fundamental conception of Logic is not the art of discovering truth, but the science of JUDGING, whether or not certain alleged discoveries are true. Logic is the science of judgment, and not an art of discovery, or even of reasoning. Logic discovers and applies the tests which any proposition must satisfy, before it can be admitted to be true. Cicero has described once, and for ever, the true functions of Logic, *De Oratore*, II., 38. "In hac arte, si modo est hæc ars, nullum est præceptum, quo modo verum *inveniat* sed tantum est, quo modo JUDICETUR." When, therefore, we separate what falls within the limits of this conception, from what transgresses it; when we consider that in his day there was not one single science from which he could draw his observations, there is no candid mind but must be astonished at his penetration and sagacity, in anticipating the science of sciences. No one can dispute the merit of Aristotle in discovering the syllogistic mode of reasoning, nor can blame him because his injudicious followers pushed it far beyond what he ever intended. But Aristotle founded his system *inductively*; he framed it by observing what examples of reasoning were acknowledged to be valid by common consent. Bacon founded his system *à priori*, with no single instance in existence of an Inductive Science; and though no doubt great additions have been made to it in modern times, yet the amount of success he did achieve is truly marvellous. By a curious whim of fortune, the chief of the school of *à priori* reasoners founded his system inductively; the chief of the inductive school of logic founded his system *à priori*.

13. But notwithstanding the general admiration in which his works have been held by the wise and learned in all countries, it seems to us that one of his most striking and original merits has never been sufficiently appreciated, and we

must enlarge upon it, because it has special reference to our present subject.

14. When the greatest moral philosopher of antiquity attempted to master the physical science of his day, he found that everything in it was a mere chaos of confusion, a mass of baseless dogmatizing, and vain speculation. He called off his disciples in blank despair from such unprofitable labor, and bade them devote themselves to the study of moral science, which was within their comprehension, and to know just so much of natural science as to know when to sow, and to reap, and to sail; nay, he considered those who engaged in such objects of contemplation as wanting good sense. He used to inquire whether such persons thought they already knew enough of human affairs before they proceeded to such subjects of meditation. He thought that men never could come to a satisfactory conclusion on such points, because those who thought themselves the most learned in them, were altogether at variance with each other. As for himself he would abandon all such vain speculations, which never could have any practical utility, and turn his attention entirely to moral and civil philosophy, and all things which concerned mankind. Thus physical and moral science were utterly divorced in ancient times, and for twenty centuries it was supposed that there was no connexion between the two.

15. But Bacon, greatly wiser,—and for this he has never received the thousandth part of the credit that is due to him—had the marvellous sagacity to perceive that in Natural Science were to be found the types and standards of reasoning, which were to guide us in Moral and Political Science. He inculcates the study of Physical science, it is true, for its own sake, but not for its own sake only, but as the foundation of Moral Science. After shewing that one cause of the backward state of the sciences was the short period during which they had been studied, he says, *Nov. Org.*, Book I., Aph. 79, "In the second place, there presents itself that cause of great weight in every way, namely, that during those very ages in which the genius and learning of men have chiefly flourished, NATURAL PHILOSOPHY obtained the least part of human labor. And, nevertheless, this very thing ought to be held to be the GREAT MOTHER OF THE SCIENCES. For all arts and sciences, if torn from this root, though perhaps they may be polished and made fit for use, yet they will make no further progress. * * * * * And the age during which Natural Philosophy was seen to flourish in Greece, was but a very brief interval of time, for both in the more ancient times, the seven who were called the wise men, all except Thales, applied themselves to moral philosophy and civil affairs; and in later times, when Socrates drew down philosophy from heaven to earth, Moral Philosophy prevailed more and more, and turned the minds of men from the Philosophy of Nature." So Aph. 80. "To this it is to be added that Natural Philosophy, even among those very men who have nurtured it, has scarcely ever obtained the whole leisure and employment of any one, especially in these later times; except, perhaps, some instances of a monk in his cell, or a gentleman speculating in his country house. But the Philosophy of Nature has been made, as it were, a passage and a bridge

to something else. And so this *great Mother of the Sciences* has been, with wonderful indignity, thrust down to the office of a handmaid. * * *

* * * *Meanwhile let no one expect much progress in the Sciences, (especially in the practical part of them), UNLESS NATURAL PHILOSOPHY BE APPLIED TO EACH INDIVIDUAL SCIENCE, AND EACH PARTICULAR SCIENCE BE REFERRED AGAIN TO NATURAL PHILOSOPHY.* Hence it is that astronomy, optics, music, most of the mechanical arts, medicine itself, and—what one might more wonder at—MORAL AND POLITICAL PHILOSOPHY, logical sciences have scarcely any depth, but only glide over the surface of a multitude of things, because after these separate sciences have been once distributed and erected, they are no longer nourished by Natural Philosophy. * * * Therefore, it is not the least strange if the sciences make no progress, when they are torn from their roots."

16. So also *Aph.* 107. "And here it may be repeated, what was said above, about the application of Natural Philosophy, and that each separate science must be referred to that again, that the sciences may not be severed and cut off from the trunk. For without this little progress is to be hoped for." Also *Aph.* 127.—"Some, too, may doubt rather than object, whether we speak of Natural Philosophy only, or that the other sciences, logic, ethics, politics, are also to be brought to perfection by the same method. But most assuredly we mean what we said to apply to them all; and, as the common logic, which acts by syllogism, affects not only the natural, but *all* sciences, so also ours, which proceeds by induction, embraces them all. For we form a history, and tables of discovery, of anger, fear, shame, and the like, also of examples in Politics, so also of affections of the mind, &c."

17. So also *De Augmentis, Lib. IV.*, c. 1. "Let us now come to that knowledge, to which the oracle of old leads us—namely, the knowledge of ourselves, upon which, as it touches us the more nearly, the more diligence is to be bestowed. This knowledge is, for men, the aim and the object of all knowledges, but it is only a portion of nature. And let this be laid down as a general rule, that all divisions of sciences be so understood and applied, that they may rather mark and distinguish them, than separate and divide them. *So that we may always avoid a break of continuity in the sciences.* For the contrary mode has made each separate science barren, empty, and erroneous, since they were not nourished, supported and corrected, by the common fountain and aliment." So also *De Augm.* III., 4. "We have laid down that this is the function of Natural Philosophy, to be the common mother of the sciences."

18. Now, Bacon has, beyond all doubt, the sole, undivided, and transcendent merit of discovering that the reasoning in Natural Science is the type and the model of reasoning in Moral and Political Science, and that, whatever in the latter clearly and manifestly violates the method in the former, is to be infallibly condemned. And yet J. B. Say had read Bacon with such extraordinary carelessness and inattention, as to say "Bacon ignorait complètement, que la même méthode était applicable aux sciences morales et politiques, et qu'elle y obtiendrait des succès du même genre!" (*Cours d'économie politique. Vol. II.*,

p. 550. *Edit Guillaumin*). And this great truth, which was first seen and proclaimed by Bacon, has been repeatedly enforced by the most eminent men since. Newton says that an extension of our knowledge of the laws of Natural Philosophy would certainly extend our knowledge of the laws of Moral Philosophy. So, too, Bishop Butler, "There is a much more exact correspondence between the *natural* and the *moral* world than we are apt to take notice of." *Sermon VI. On Compassion.* A general officer lately addressing the students at a military institution, earnestly pressed the study of Chemistry upon the young officers, because he said he had often found the laws of Chemistry of great practical use in the affairs of life. And Mr. Mill, to whose opinions on the proper method of the treatment of Political Economy we shall shortly advert, exactly in the spirit of the extract from Bacon, we have quoted above, says, "Although the scientific arrangements of organic matter, afford as yet the only complete example of the true principles of rational classification, whether as to the formation of groups or of series, those principles are applicable to all cases in which mankind are called upon to bring the various parts of any extensive subject into mental consideration. They are as much to the point when objects are to be classed for purposes of art or business, as for those of science. *The proper arrangement, for example, of a code of laws, depends on the same scientific conditions as the classification in Natural History*, nor could there be a better preparatory discipline for that important function, than the study of the principles of a natural arrangement, not only in the abstract, but in their actual application to the class of phenomena for which they were first elaborated, and which are still the best school for learning their use." (*Logic II.*, 282.) And again, p. 358. "These aberrations in medical theory, have their exact parallel in politics."

19. Thus we see that Mr. Mill is in exact harmony on this point with Bacon, Newton, and others, who have made the same remark often since. That is, he admits that the principles of the classification of laws is to be founded on the model and type of the classification of Natural History; that is, he observes the continuity of science between Legislation and Natural History, making both a part of Inductive Philosophy; but when he comes to Political Economy, he absolutely extrudes it from Inductive Science altogether. He breaks the continuity of science between Political Economy and Physical Science, and maintains that in Political Economy, the *a priori* or dogmatic method, is the only true one. And this is his settled opinion on the subject, and he repeats it over and over again. Thus, in his *Essays upon some unsettled questions of Political Economy, Essay V. on the Definition and Method of Political Economy*, p. 141, after some remarks upon the importance of ascertaining the correct definition of the science, in which we entirely agree, he says, "with the consideration of the definition of a science is inseparably connected that of the philosophic method of the science; the nature of the process by which its investigations are to be carried on, its truths to be arrived at."

"Now, in whatever science there are systematic differences of opinion—which is as much as to say in all the Moral or Mental Sciences, and in

Political Economy among the rest; in whatever science there exist among those who have attended to the subject, what are commonly called differences of principle as distinguished from differences of matter-of-fact, or detail—the cause will be found to be a difference in their conceptions of the philosophic method of the sciences." Also p. 143, "In the definition we have attempted to frame, of the Science of Political Economy, we have characterized it as essentially an *abstract science*, and its method as the method *à priori*. *Such is undoubtedly its character as it has been understood and taught by all its most distinguished teachers.* It reasons, and, as we contend, it must necessarily reason from assumptions, not from facts. It is built upon hypotheses, strictly analogous to those which, under the name of definitions, are the foundation of the other abstract sciences." Again, p. 145, "This ought not to be denied by the Political Economist. If he deny it, then, and then only, he places himself in the wrong. The *à priori* method which is laid to his charge, as if his employment of it proved his whole science to be worthless, is, as we shall presently shew, the only method by which truth can possibly be attained in any department of the Social Science." Also, p. 146, "But we go further than to affirm that the method *à priori* is a legitimate mode of philosophical investigation in the moral sciences; we contend that it is the only mode. We affirm that the method *à posteriori*, or that of specific experience, is altogether inefficacious in these sciences as a means of arriving at any considerable body of valuable truth; though it admits of being usefully applied in aid of the method *à priori*, and even forms an indispensable supplement to it."

20. We shall postpone the consideration of Mr. Mill's reasons for maintaining this doctrine until we have investigated what grounds he has for an assertion of a matter of fact. He says that *all* the most distinguished Political Economists have treated it as an *à priori* science. From this statement of fact, with all due respect for Mr. Mill, we must entirely dissent. It is true that some have done so, among others Quesnay, its founder in modern times, and others; but we wholly deny that the economists to whom the science is most indebted have done so. Adam Smith undoubtedly did not do so, his work is peculiarly remarkable as one in which abstractions are laid aside, and actual phenomena are discussed and explained in a familiar manner. J. B. Say, who stands next in order of time and merit to Adam Smith, and who, in fact, did the same service to the continent, that Adam Smith did to England, namely, made it popular, expressly condemns the *à priori* method, and repeatedly declares that it is a science of pure *observation*. Nay, in the very passage we have cited above, exhibiting such an extraordinary instance of carelessness, the very charge he brings against Bacon is, that he did not see that the identical method to be applied to Physical Science, was the one to be followed in Moral and Political Science, and would be attended with the same kind of success. He also says, (*Discours Préliminaire, Traité d'économie politique, p. 3, édit. Guillaumin,*) "En économie politique, comme en physique, comme en tout, on a fait des systèmes avant d'établir des vérités; c'est-à-dire, qu'on a donnée pour la vérité des conceptions gratuites, de

pures assertions. Plus tard, on a appliqué à cette science les méthodes qui ont tant contribué, depuis Bacon, aux progrès de toutes les autres; c'est-à-dire, la méthode expérimentale, qui consiste essentiellement à n'admettre comme vrais, que les faits dont l'observation et l'expérience ont démontré la réalité, et comme des vérités constantes que les conclusions qu'on en peut tirer naturellement; ce qui exclut totalement ces préjugés, ces autorités, qui en science comme en morale, en littérature comme en administration, viennent s'interposer entre l'homme et la vérité." So page 5. "L'économie politique qui est une science expérimentale * * * L'économie politique, telle qu'on l'étudie à présent est tout entière fondée sur des faits, car la nature des choses est un fait, aussi bien que l'événement qui en résulte." So page 6. "L'économie politique est établie sur des fondemens inébranlables, du moment que les principes qui lui servent de base, sont des déductions rigoureuses de faits généraux incontestables." And so far from sanctioning the *à priori* method of treating Political Economy, he expressly condemns those who do so. He says at p. 15, "D'autres considérations non moins délicates se rattachent à ce qui précède. Quelques écrivains du dix-huitième siècle et de l'école dogmatique de Quesnay d'une part, et des économistes Anglais de l'école de David Ricardo d'une autre part, sans employer les formules algébriques trop évidemment inapplicables à l'économie politique, ont voulu y introduire un genre d'argumentation, auquel je crois, en thèse générale, qu'elle se refuse de même que toutes les sciences qui ne reconnaissent pour fondement que l'expérience: je veux dire l'argumentation qui repose sur des abstractions. * * * Quand on admet pour fondement, au lieu d'un fait bien observé, un principe qui n'est fondé lui-même que sur une argumentation, on risque d'imiter les scholastiques du moyen-âge qui discutaient sur des mots, au lieu de discuter sur des choses, et qui prouvaient tout; hors la vérité." And he gives instances where he considers, and justly in our opinion in one at least, Ricardo and McCulloch to have fallen into error by adopting this method, and he dwells upon the mischief produced in the science by adopting this method. "Il s'en est suivi d'interminables discussions, où les contendans semblent avoir eu pour bruit, non de répandre l'instruction, mais de se convertir mutuellement; où chacun en oubliant le public, n'a cherché qu'à soutenir son dire; de là des controverses quelquefois peu intelligibles, souvent ennuyeuses, et qui ont eu ce fâcheux effet, que les gens du monde ignorant les solides bases sur lesquelles l'économie politique repose, ont pu croire qu'elle était retombée sous l'empire des systèmes, et des opinions individuelles, que l'on n'était d'accord sur rien." He then more particularly censures the method adopted by Quesnay. He says, page 24, "Au lieu d'observer d'abord la nature des choses, c'est-à-dire, la manière dont les choses se passent, de classer leurs observations, et d'en déduire les généralités, ils commencèrent par poser des généralités abstraites qu'ils qualifiaient du nom d'axiomes, et où ils croyaient voir briller par elle-même l'évidence. Ils cherchaient ensuite à y ramener les faits particuliers, et en deduisaient des règles; ce qui les engagea dans la défense de maximes évidemment contraires au bon sens, et à

l'expérience des siècles." While fully acknowledging their excellence as men, and also the real services they performed to the State, he says, page 25, "Mais d'un autre côté les économistes ont fait du mal, en décrivant plusieurs maximes utiles, en faisant supposer par leur esprit de secte, par le langage dogmatique et abstrait de la plupart de leurs écrits, par leur ton d'inspiration, que tous ceux qui s'occupaient de semblables recherches, n'étaient que des rêveurs dont les théories, bonnes au plus pour rester dans les livres, étaient inapplicables dans la pratique." He also censures Condillac for following their method, page 26, "Comme les économistes il fonde presque toujours un principe sur une supposition gratuite, et il en fait l'aven dans sa préface; or, une supposition peut bien servir d'exemple pour expliquer ce qui démontre le raisonnement appuyé sur l'expérience, mais ne suffit pas pour établir une vérité fondamentale. *L'économie politique n'est devenue une science qu'en devenant une science d'observation.*"

21. He then points out that Adam Smith pursued exactly the opposite method, namely, the inductive method of deducing principles from facts, and says, p. 29—"Lorsqu'on lit Smith comme il mérite d'être lu, on s'aperçoit qu'il n'y avait pas avant lui d'économie politique." Also he says, p. 29, "Avant Smith on avait avancé plusieurs fois des principes très vrais: il a montré le premier pourquoi ils étaient vrais. Il a fait plus: il a donné la vraie méthode de signaler les erreurs; il a appliqué à l'économie politique la nouvelle manière de traiter les sciences, en ne recherchant pas ses principes abstractivement, mais en remontant des faits les plus constamment observés, aux lois générales dont ils sont une conséquence. De ce qu'un fait peut avoir telle cause, l'esprit de système conclut la cause; l'esprit d'analyse veut savoir *pourquoi* telle cause a produit cet effet, et s'assurer qu'il n'a pu être produit par aucune autre cause. L'ouvrage de Smith est une suite de démonstrations qui ont élevé plusieurs propositions au rang de principes incontestables, et en ont plongé un bien plus grand nombre dans ce gouffre où les idées vagues et hypothétiques, les imaginations extravagantes, se débattent un certain temps avant de s'engloutir pour toujours."

22. Thus, we see that Mr. Mill's assertion that *all* the most distinguished Economists have considered Political Economy as an *à priori* science, and have treated it so, is completely disproved. And we entirely concur with, and adopt these views of Say. So far from *all* the most distinguished Economists having adopted this method, it is only Ricardo and his followers who have done so in this country, and, as we shall endeavour to shew, with the most pernicious consequences.

23. Having thus shewn that Mr. Mill is completely in error in his allegations of fact, we shall now examine his reasons for considering, and laying down in such decided terms, that Political Economy can only be treated in the *à priori* method. He says (*Essays, &c.*, p. 146), "There is a property common to almost all the moral sciences, and by which they are distinguished from many of the physical; this is that it is seldom in our power to make experiments in them. In chemistry and natural philosophy, we can not only

observe what happens under all the combinations of circumstances which nature brings together, but we may also try an indefinite number of new combinations. This we can seldom do in ethical, and scarcely ever in political science. We cannot try forms of government, and systems of national policy, on a diminutive scale in our laboratories, shaping our experiments as we think they may most conduce to the advancement of knowledge. We, therefore, study nature under circumstances of great disadvantage in these sciences, being confined to the limited number of experiments, which take place (if we may so speak) of their own accord, without any preparation or management of ours; in circumstances, moreover, of great complexity, and never perfectly known to us, and with the far greater part of the processes concealed from our observation.

"The consequence of this unavoidable defect in the materials of the induction is, that we can rarely obtain what Bacon has quaintly, but not unaptly, termed an *experimentum crucis*," also, p. 149, "Since, therefore, it is vain to hope that truth can be arrived at, either in Political Economy, or in any other department of the Social Science, while we look at the facts in the concrete, clothed in all the complexity with which nature has surrounded them, an endeavour to elicit a general law by a process of induction from a comparison of details; there remains no other method than the *à priori* one, or that of abstract speculation."

24. And that this is Mr. Mill's well-considered and settled opinion appears by his later work (*Logic*, vol. I., p. 414, Edit. 1856). "We have thus already come within sight of a conclusion, which the progress of the inquiry will, I think, bring before us with the clearest evidence: namely, that in the sciences which deal with phenomena, in which artificial experiments are impossible (as in the case of astronomy), or in which they have a very limited range (as in physiology, mental philosophy, and the Social Science), induction from direct experience is practised at a disadvantage, generally equivalent to impracticability, from which it follows that the methods of those sciences, in order to accomplish anything worthy of attainment, must be to a great extent, if not principally, deductive. This is already known to be the case with the first of the sciences we have mentioned, astronomy; that it is not generally recognized as true of the others, is probably one of the reasons why they are still in their infancy." Surely there is some inconsistency in this last sentence with Mr. Mill's previous assertion, that *all* the most distinguished writers on Political Economy had adopted the *à priori* method.

25. We have, however, the misfortune to be entirely of an opposite opinion to Mr. Mill on this point. We venture to affirm, that the true reason why Political Economy is in its infancy, is because Economists (at least later ones) have not sufficiently seen that it is a purely Inductive Science, and because they have not treated it in that way. On the contrary, we affirm that the true reason why Political Economy is now over-run and infested with doctrines which bear every analogy to those which infected mechanics before the days of Galileo, is because Economists have adopted the *à priori* method of arbitrary dogma-

tizing, and have never sufficiently informed themselves of the *facts* they have to deal with, and never sufficiently tested the conceptions they have formed of the objects Political Economy deals with, and the general laws they adopt, with the laborious care and rigorous accuracy that is absolutely indispensable for the establishment of true science. And we entirely dissent from Mr. Mill's views (*Logic*, vol. I., p. 526). "The Deductive Method; which, in the present state of knowledge, is destined henceforth irrevocably to predominate in the course of scientific investigation. A revolution is peaceably and progressively effecting itself in Philosophy, the reverse of that to which Bacon has attached his name. That great man changed the method of the sciences from deductive to experimental, and it is now rapidly reverting from experimental to deductive."

26. We have now got to the foundation of what we consider Mr. Mill's erroneous ideas as to the proper method of treatment of Political Economy. He contradistinguishes Political Economy from physical science, because he says it is impossible to obtain an unlimited number of artificial experiments in it, and, therefore, it is impossible to obtain its general laws, as is done in physical science. We shall endeavour to shew hereafter, that though in general it is not possible to have actual experiments, yet we can have what, to all intents and purposes, are equivalent to experiments, and which stand in exactly the same relation to Political Economy (and we might add the moral sciences in general, only that we must confine ourselves to our specific subject) as experiments do to Physics.

27. Bacon, in describing the defects of the Syllogistic or *a priori* method, which was in use in physical science in his day, saw clearly that it never could penetrate the recesses of nature. He says, (*Distributio Operis*), "The Syllogism consists of propositions, propositions of words, but words are the tokens and signs of conceptions. So that if the very conceptions of the mind (which are, as it were, the soul of words and the foundation of this superstructure and edifice) are badly and inconsiderately formed from the facts, vague, nor sufficiently definite and limited, faulty in short, in every way, it ruins everything," which he repeats almost in the same terms, *Nov. Org. Lib. I.*, Aph. 14. And he over and over again repeats that the formation of conceptions, or definitions, and axioms, or general laws, by true induction, is the only way of expelling fallacies. So, in affirming that the conceptions and axioms of his own day were utterly worthless, he says, Aph. 18, "The discoveries already made in the sciences are of such a sort as scarcely to be below the surface of the vulgar notions; but in order to penetrate to the deep recesses of nature, both conceptions and axioms must be derived from facts, by a more certain and guarded method." And Aph. 40. "The formation of conceptions and axioms, by a true induction, is assuredly the true remedy to drive away and expel fallacies. And of these fallacies, the fallacies of language, (*Idola fori*), which men gain from one another by common discourse, are the most troublesome of all. For the ill and unfit choice of words wonderfully obstructs the understanding. For words plainly exert a power over the understanding,

and throw everything into confusion, and lead men away into numberless empty controversies and phantasies; for men believe that their understanding controls their language, but it is also true that language reacts and turns back its power over the understanding, which is the very thing which has rendered philosophy and the sciences sophistical and inactive. But words are commonly framed by the capacity of the vulgar, and divide things according to the lines which are most obvious to the understanding of the vulgar. And whenever a clearer intellect and a more careful observation, wishes to shift these lines to a truer agreement with nature, words cry out against it. Thus it happens that great and important discussions of learned men often turn into controversies about words, and names, with which (according to the wise custom of mathematicians) it would be more prudent to begin, and so bring them into order by definitions." Aph. 40, 59, and so Aph. 60. "The fallacies which words impose upon the understanding are of two sorts. They are either names of things which do not exist, * * or they are names of things which do exist, but are confused and ill-defined, and hastily and irregularly formed from the facts. And this class, which is formed by a bad and unskilful abstraction, is intricate and deeply rooted." So also Aph. 105, "And the assistance of this Induction is to be used, not only in discovering general laws, but also in the formation of conceptions. And assuredly in this Induction the chief hope lies."

28. Some writers, indeed, suppose that the technical terms in Political Economy, being chiefly used in common discourse, cannot be defined with the same accuracy as those in physical science. This, however, is a complete error. A very large proportion of the technical terms in every science, at least in the older ones, are words taken from common discourse, but they are invariably fixed and defined, and uniformly used in a special sense, in that science. This is especially the case in geometry, mechanics, and theology. Hence we see that that circumstance is by no means peculiar to Political Economy. Nor is the formation of definitions an arbitrary proceeding. It is not an uncommon idea that authors may give their own definitions to words as long as they uniformly adhere to the same sense. But this, too, is a grievous error. Conceptions, or Definitions, have their foundation in nature, exactly as general laws have, and they must be settled by the same process and with the same care. There is a natural connection of objects, and this must be thoroughly understood before it is possible to settle true conceptions. Classification is founded on reality, not upon arbitrary association, and we shall never attain true knowledge until we can look through the husk of a name to nature.

29. And most men, eminent as clear thinkers, since the days of Bacon, have dwelt upon the importance of true conceptions. Thus, Hobbes says, (*Leviathan*, pt. 1, c. 4,) "In the right definition of names lies the first use of speech, which is the acquisition of science. And in wrong, or no definition, lies the first abuse, from which proceed all false and senseless tenets." And again, "Every man, who aspires to true knowledge, should examine the definitions of former authors, and either

correct them, or make them anew." Nor is Mr. Mill himself insensible to the importance of the true interpretation of names, in other things, though he strangely discourages it in Political Economy, for he thus concludes an able chapter on Definition, (*Logic*, Vol. I., p. 175), "But to penetrate to the more hidden agreement on which these obvious and superficial agreements depend, is often one of the most difficult of scientific problems. As it is among the most difficult, so it seldom fails to be among the most important. And since upon the result of this inquiry, respecting the causes of the properties of a class of things, there incidentally depends the question what shall be the meaning of a word; some of the most profound and most valuable investigations which philosophy presents to us, have been introduced by, and have offered themselves under the guise of, inquiries into the definition of a name."

30. And this is equally true of Political Economy as of any other science, and yet it has very generally been overlooked, and even denied. The whole science is founded on obtaining true conceptions of a few fundamental words, such as *Value*, *Currency*, *Capital*, *Credit*, *Production*, *Consumption*, *Measure of Value*, *Rate of Profit*, and some others. Nor do these stand by themselves, as mere isolated exercises of ingenuity. Dr. Whewell points out that true definitions are always associated with some proposition, and that it is only true conceptions, or general terms, that render general propositions possible. Nay, in fact, it is generally the discussion of propositions that gives rise to the battle of definitions. When certain writers deny, and sneer at those who think that credit is capital, it comes to this. What is Capital? and what is Credit? And so on, of most of the disputed doctrines in Political Economy, it will invariably be found that the combatants form totally different conceptions of the words they are using.

31. We have, in the foregoing remarks, endeavoured to establish the following points,—I. That Bacon declared that Physical Science was the true basis and preparation for the study of Moral and Political Science, and that his method was applicable to the latter, as well as to the former. II. That Political Economy is an Inductive Science. III. That Mr. Mill is in error when he says that *all* the most distinguished Economists have considered that the *a priori* method is the proper mode of treating it; that, on the contrary, the most distinguished have considered and treated it as an Inductive Science. IV. That the same methods of investigation are to be followed in Political Economy, as have been followed since the days of Galileo in Mechanics, that it consists of Conceptions and Axioms upon which the same labor is to be bestowed in ascertaining and settling, as is done in Physical Science, and that the settlement of these is to be governed by the same principles. V. That the acknowledged standards of reasoning in Physical Science are to be followed in Political Economy, and that if any of the prevailing doctrines, or modes of reasoning, current in Political Economy, are manifest violations of the acknowledged standards of reasoning in Physical Science, they are to be condemned and altered. We shall not, of course, in this place, enter into any attempt to settle each conception and axiom, because that is done under each article separately, to which we must refer. We shall

merely bring forward, in the following sections, a few examples of the immense consequence to the science, of adopting true conceptions of some of the principal words, and the different doctrines that necessarily follow from the settlement of such definitions.

32. With respect to the conception of the Science itself, we have shown the advantage obtained by framing such a definition of it, as shall be free from the objection which Mr. Mill has justly brought forward against the ones in common use. By treating it as the science which treats of the *Laws which regulate the Exchangeable relations of quantities*, we obviate the objections which have been justly urged against considering it as the science which treats of the *Production, Distribution, and Consumption of Wealth*. For it at once draws a sharp and distinct line between an agricultural product, and the art and science of agriculture, between any commercial product, and the art and process of producing it, and in general between any actual products, and their exchangeable relations, and the several processes by which they are obtained. Thus we have a clear and distinct test of what the pure science of Political Economy includes, and what is to be considered beyond its limits. Because whatever causes an increase or a diminution of the *number* of products, or varies their exchangeable relations, is a question of pure Political Economy, the method or process of obtaining such products is a branch of the arts or commerce. Thus the causes which induce a greater or a diminished quantity of corn to be produced, and influence its price when produced, is a question of pure Political Economy, the improved modes of cultivation are part of the art and science of agriculture. But the question of Foundling Hospitals, and the influences they exert in increasing or diminishing the number of foundlings, is a question of pure Political Economy. So ragged schools and reformatories, so long as they are considered with reference to the improvement or deterioration of the inmates of them, come under the denomination of morals, but if we consider their effects in increasing or diminishing the number of criminals, that is a question of Political Economy, and so on.

33. In the formation of conceptions it is not only necessary to obtain true ones, but also to fill them up, or to ascertain *all* the quantities that satisfy them. Thus, when we firmly fix in our minds, that the term *VALUE* in Political Economy is exclusively to be understood as a *SIGN* or *EQUALITY between two ratios*, or that, in fact, we may say that *Value is a proportion*, and not a *quality*, it follows that whatever quantity enters into this proportion, is an independent economic entity, whatever its nature be. Thus, when we say that one ounce of gold is of the value of fifteen ounces of silver, that is simply the following equation:—

1 oz. Gold = 15 oz. Silver,
which is the following proportion:—

Gold : Silver :: 15 : 1.

As soon, then, as we see that value is the sign of equality between these respective quantities, 1 oz. gold and 15 oz. silver, or that it indicates the ratio in which gold and silver will exchange, it follows that any two quantities whatever, between which this sign can be placed, are to be considered as independent entities in Political Economy, and

are within its domain. Thus, if an hour's instruction in music, or drawing, is worth a guinea, that instruction is an economic entity. Now, an hour's instruction in music, or drawing, and a loaf of bread, or a table, cannot very well be compared with each other, but when we find that persons will give the same quantity of money for a certain quantity of each of them, they do become commensurable. That is, as Aristotle most exactly pointed out, the *desire* for them, and the quantity of money any one will give for them, is the measure of their value. And it follows that each of them is an independent entity, and must be treated as such. Hence, all personal and professional services, for which men pay money, are to be considered as independent entities, for the very same cause confers value upon each of them—namely, the *desire of mankind*. If I require the Attorney-General's opinion, for which I pay fifty guineas, and I also require a chronometer watch, for which I also pay fifty guineas, it manifestly follows, that the Attorney-General's opinion is an economic entity, just as much as the chronometer watch.

34. Now, Adam Smith and Ricardo restricted their views to *material* products only, in which it is quite clear that their system is defective. J. B. Say, and the French school of Political Economy, and Mr. Senior, have seen that intellectual capital is, to all intents and purposes, an economic entity. That the copyright of a work, or the goodwill of a business, is an economic entity as much as an acre of land, or a steam-engine. Thus, they have greatly extended the boundaries of the science. But yet they have not enlarged it to its full limits. Because there is an immense amount of valuable property which they have left unnoticed, and which is yet manifestly within the domain of Political Economy. And that is, all annuities, all estates in remainder and reversion, all future payments of every description, in short. Thus, for instance, we may buy an annuity of £3 for ever for £100. Then we have the equation:—

£100 = a perpetual annuity of £3.

From which it manifestly follows, that the annuity of £3 is an independent entity, just as much as the chronometer watch, or the Attorney-General's opinion.

35. Now we shall never obtain a clear conception of Political Economy, unless we firmly adhere to this—that it is *human desire that confers value upon anything whatever*. And that whatever satisfies a human want, and for which men will give anything in exchange, is an independent entity, and that it is so only, and so long as men will give something to obtain it. When we buy a landed estate for £100,000, most persons will say that the *land* is the equivalent for the money. And so it is in a certain sense. But how is it so? The reason is that, when we give £100,000 for an estate we feel assured that the land, year by year, for ever, will produce something of the value of £3,000, that some one will give £3,000 for its products. That, in fact, it is the source from which a perpetual annuity of £3,000 will spring. Hence, we see that it is the demand for the products of the land which confers value upon it.

36. Now it manifestly follows that any source whatever from which an annual revenue springs, is also an independent economic entity. Thus,

the copyright of a work is valuable, because it is expected that a certain number of persons will come in future to exchange something for so many copies of the work. So the goodwill of a business is a valuable thing, because it is expected that so many persons will come to buy at that shop. Also a knowledge of law is a valuable thing, because it is calculated that a certain number of persons will have the misfortune to require some legal products, and so on of the other professions. The same cause confers value on each of them, the same cause would deprive them of value—namely, a cessation of the demand for their products. Now these considerations strike at the very root of some of the prevalent doctrines of Political Economy—because it is a very common opinion that it is *labour that confers value*. Whereas we see that it is *demand* exclusively that confers value. A highly cultivated piece of land in the centre of Australia, after satisfying the wants of the few persons who were necessary to till it, would have no more *value* than any other portion of waste land round it, because there would be no demand for its products. Hence we see that a landed estate, the copyright of a work, the goodwill of a business, a professional education, are each of them independent entities, and must always be so treated in Political Economy.

37. But it follows too, in fact, it is only another term for the goodwill of a business, that each man's skill, industry, judgment, and mercantile connection, is an Economic entity, over and above his actual money and commodities, and is measurable in money; and he can dispose and sell the *FUTURE* produce of his commercial skill, just as much as he can of his existing property; and this in mercantile language is called *CREDIT*. And this property is daily bought and sold to the amount of millions of money, by means of instruments of credit, which in commercial language are called Bills of Exchange, and these Bills of Exchange do not *represent* any money or commodities whatever; they represent the *future* produce of his skill and industry; and they are independent entities, wholly distinct from money and commodities.

38. Now we shall see the application of Dr. Whewell's remark, that true definitions are always connected with propositions. For, when we consider that the term value is the sign of equality between two independent Economic entities (*VALUE*), and when we thoroughly understand that instruments of credit are independent Economic entities, and not mere tickets on commodities, like Bills of Exchange and Dock Warrants (*CREDIT*); and when we further understand that Capital is a particular method of using an Economic entity (*CAPITAL*); that is, that whether an Economic entity is to be considered as Capital, does not depend upon the *nature* of the thing itself, but upon the *method* in which it is used; and when we further consider that instruments of Credit are independent Economic entities, which may be used in the manner by which entities become Capital, we arrive at this great proposition, THAT *CREDIT IS CAPITAL*.

39. And how is this great proposition arrived at? By forming true conceptions of the words *Value*, *Credit*, and *Capital*. But, in order to form a true conception, a particular method of statement of the circumstances is indispensable.

Any one who knows anything of Political Economy, must be aware of the perpetual sneers and ridicule a long series of writers have poured out upon the doctrine that credit is capital, and the taunts which they threw at those persons who think that it is, saying that they believe that the same thing can be in two places at once. But then when we come to examine what the ideas of these writers are upon the nature of credit, we find that they have most plainly misconceived it. Because they state the question thus. That if B holds A's bill payable (say) three months hence, that if it is a credit of B's it is a debt of A's, and therefore the two balance, and the result is *nil*. And they manifestly treat it as if it were a diminution of A's *existing* property, and consider it as an existing debt of A. Now this is an entire misconception of the nature of the case. A merchant who has given his bill, payable three months after date, is *not in debt at all* until the bill falls due. He is no more in debt than a farmer is in debt for his *next* year's rent. It is utterly bad law to suppose that a merchant who gives his bill, payable three months hence, is in debt. To say that it is a diminution of his property is a highly ambiguous expression, because it *is* true, but it is *not* true in the sense commonly attached to it. It is no diminution of his actual property, but it is a diminution of the products of his *future* industry. The fact is, that the *future* produce of A's industry is an independent entity, and he has sold that to B just the same way as he might sell a horse; but that does not annihilate the existence of the horse as an independent entity. So it is perfectly true that A may sell the future produce of his industry to B, but that does not annihilate the existence of that future produce.

40. Bacon (*Nov. Org. Lib. I. Aph. 55*) says that there is a great and almost radical distinction between minds in regard to philosophy and science, that some are more apt to perceive the difference of things, and others the resemblances. This distinction, though often insisted upon as fundamental, will appear to be less radical, perhaps, if we consider that to do each accurately, depends upon the same general power, namely, that of separating complex terms into their elementary ideas, and discerning which is the leading idea, and which are the subordinate ones. When the leading ideas of objects are identical, they must be classed together, even though some of the subordinate ones are opposite. On the other hand, when the leading ideas are opposed, then there is a fundamental distinction between the objects, even though some of the subordinate ones are similar. Thus the same general power of the mind enables us to annihilate spurious identities, and to detect latent similarities. Now all true classification, which is as much as to say all true science, is based upon perceiving fundamental analogies beneath superficial differences, and fundamental distinctions, beneath superficial resemblances.

Now one of the fundamental conceptions in Political Economy is, that money, bank notes, bills of exchange, notwithstanding their superficial difference, are fundamentally analogous. And that bills of exchange, bills of lading, dock warrants, &c., though having some superficial resemblances, are fundamentally distinct. Now common persons, looking only at the superficial difference

between bills of exchange and money, seeing that one is credit and the other payment, and that a bill of exchange promises to pay money on the face of it, think that they are totally distinct, whereas a real knowledge shews that they are each separate entities, and that money is only the highest form of credit, it is in its nature only a universal bill of exchange. On the other hand, common persons looking only at the superficial resemblances between bills of exchange and bills of lading, and supposing that one represents so many sovereigns, and the other so many casks of tallow, and that they are both negotiable instruments, jump at the conclusion that they are identical in their nature. Whereas, real knowledge of the subject shews that they are wholly distinct, the former being independent entities, and the latter merely tickets on goods.

41. And here we have one of those striking results which are invariably found to attend the settlement of some true conception or principle. For a clear understanding of this point strikes at the root of that stupendous fallacy, John Law's theory of currency, which has been an insoluble enigma to Political Economy from that day to this; for it is entirely founded on confounding the distinction between bills of exchange and bills of lading, and supposing that any paper currency, which only represents some article of value, will maintain its value with respect to gold and silver. And innumerable projectors at the present day believe in it; nay, we constantly find some person starting up and announcing it as some great new discovery, whereas it has been tried over and over again and uniformly failed. A true conception of this point lays the axe at the root of all the theories of basing a paper currency upon land, the public funds, or commodities, because it shews us that money and instruments of credit perform a certain peculiar function in Economy, which is wholly distinct from that performed by commodities. Thus we see that one great practical good obtained from the settlement of a true conception is, that it instantly detects and exposes a most dangerous and fallacious theory, which has often been tried and uniformly failed.

42. Thus we see that the attainment of true conceptions is not a mere matter of logomachy, but one of enormous practical importance. For the policy of nations has often been guided by the assumed meaning of an expression. Thus the expression the *balance of trade* misguided and misled the most sagacious ministers and statesmen, for a very long time, into a most mischievous course of legislation, until at last some clear sighted Political Economists began to examine into the meaning of the phrase, and then it was found to be the most palpable delusion, the veriest chimera, and most transparent sophism that ever deceived mankind, even in Political Economy, which is saying a great deal. Thus, too, the disputed points in the theory of the Income Tax as to a difference in rating incomes from professions and property, can only be settled by a true conception of the nature of capital.

43. We shall only select one more instance of the erroneous doctrines which spring from an inaccurate definition. It is a principle of Ricardo's, which has been adopted by his followers, that the *rate of profit* is solely influenced by the rate of wages, that profits rise when wages

fall, and profits fall when wages rise. A very slight knowledge of commerce shows that this doctrine is a pure delusion. Practical experience shews that profits are often highest when wages are high, and when profits are low, wages are low too. And when we examine the matter, we find that the false doctrine springs entirely from a false definition. Because Political Economists have failed to see that the *rate of profit* must be reduced to the same standard as the *rate of interest*. Adam Smith uses the expressions *rate of interest* and *rate of profit* without seeing that both rates must be reduced to the same standard. When a man borrows £100 and pays £5 for the use of it, we always refer that to the standard of the year. Whereas the term *rate of profit* is used by Political Economists, to mean simply the ratio of the profit to the cost of production without reference to the time. But this is a most manifest error, and the whole of Ricardo's chapter on profits is based upon this manifest fallacy. The error is in confounding the *actual profit* with the *rate of profit*. Now it may easily happen, that the rate of profit is the greatest, when the actual profit is the least, and the contrary. Thus, if a man makes 50 per cent. by one transaction, that is a high profit, but if he only effects one transaction in the year, that would not be a great *rate of profit*. But if he made a profit of only 5 per cent., that would not be a high actual profit, but if he made it in one day, it would be at the rate of upwards of 1,700 per cent. per annum. Now, these considerations, which are manifestly true, entirely overthrow a very large portion of the current doctrines upon wages and profits.

44. We must content ourselves with these examples, which, we think, are sufficient to establish the point we are anxious to enforce—namely, the immense practical importance of accurate definitions. There is, however, one further point we must notice; that when we have once accurately obtained and settled true conceptions, we must carefully avoid using expressions which are inconsistent with them, and if we find that such expressions are in common use, we must do our best to extirpate such noxious words from the science. Thus, when we thoroughly understand the conception that value is the sign of equality between two independent quantities, or is a proportion, we instantly see that such expressions as *representative of value*, and *intrinsic value*, are absolute nonsense. To speak of the *representative of value* is as manifestly erroneous as to speak of the representative of a proportion; *intrinsic value* is as unintelligible jargon as to speak of an *intrinsic proportion*, or an *intrinsic relation*. It is absolutely necessary, therefore, to banish such expressions from the science, and all expressions liable to a similar objection. That this is a matter of very great difficulty is extremely true, but the science never will be brought to a satisfactory state until it is done, and if it is never begun, it will never be done.

45. Fully sensible as we are of the extreme imperfection of the foregoing remarks, we must now leave this part of our subject. The contradictory views of different Economists will be brought together under each term separately, and some of the consequences that result from them explained. We may, too, refer our readers to the Appendix to Archbishop Whately's *Elements of*

Logic, where, under the head of Ambiguous Terms, several of the contradictory opinions of writers are brought into contrast. Among them is the term *Wealth*, and we will conclude this part of the subject with some remarks of his. "It were well if the ambiguities of this word had done no more than puzzle philosophers. One of them gave birth to the mercantile system * * * The results have been fraud, punishment, and poverty at home, and discord and war without * * * *It has for centuries done more, and perhaps for centuries to come will do more, to retard the improvement of Europe, than all other causes together.*"

On the Formation of Axioms.

46. "Definition and Proposition," says Dr. Whewell, "are the two handles of the instrument by which we apprehend truth." We must now make some observations as to the method by which the Axioms of Political Economy are to be settled. But the word Axiom itself has been a subject of much controversy; for some restrict it exclusively to mean a *self-evident* truth. We cannot prolong this article by entering upon this discussion. It is sufficient to say that we use the word in the general sense of a fundamental principle, which is used as the foundation of a science, or a general system of reasoning. In such a science as geometry, the Axioms are from the necessity of the case, self-evident. But in the physical sciences they are not so. On the contrary, it is the very object of the Inductive Philosophy to discover them. The name of Axiom is given by Bacon and Newton to those great general principles which are decided to be true by Induction, such as the laws of motion. And to this sense of the word we adhere. Now, as we have defined Political Economy as the science which investigates the laws which regulate the exchangeable relations of quantities, it is evident that our next object is to endeavour to discover some general laws, or expressions, which explain the phenomena in Political Economy, with the same generality as the laws of motion do the phenomena of motion.

47. And it is in the mode of deciding which is the true one among any number of proposed laws, that the whole nature and character of the science consists. In physical science it is generally possible to devise any number of arbitrary experiments, from which it is possible to decide in favor of any law, out of any number that may be proposed, by the laws of Inductive Logic, whence Inductive Science is frequently called Experimental Science, and the two names are used as almost synonymous; and we have seen that the reason why Mr. Mill has denied that Political Economy is an inductive science, is because it is not possible to have an unlimited number of arbitrary experiments in it. From which he falls back upon the *à priori* or dogmatic method, or we may call it both the ante- and the anti-Baconian method.

48. Bacon, however, has declared that the moral and political sciences, among which of course is included Political Economy, are purely inductive sciences, and are to be constructed by exactly the same method; and, in our opinion, Bacon is right. It is perfectly true that, in Political Economy, it is not generally possible to make experiments, except by those who are at

the head of affairs. We may, therefore, at once admit that a solitary inquirer has not the power of making an unlimited number of arbitrary experiments, and that we can only watch, by direct observation, those performed by the State. But in Political Economy—and in the Moral Sciences generally—we can have what are in all respects equivalent to experiments—namely, FEIGNED CASES. It is perfectly well known, that when the application of a legal principle is doubtful, it is customary to *feign a case*, for the purpose of clearing up doubtful points, and the same is true of the Moral Sciences generally; and we can argue from feigned cases, and deduce principles from them, with exactly the same degree of certainty as if they were real cases, and also with the same degree of certainty as principles are tested by real experiments in experimental science.

49. But there is one point which must be particularly attended to in such a mode of argument, drawn from the very analogy of experiments. *The feigned cases devised for the purpose of eliciting principles must be possible.* An experiment from its very nature is a possible combination of circumstances. Now, in Political Economy no true principle can be deduced from an impossible case. It is not possible to predicate any result at all in such a case. Nor is this palatable truth of small importance. Writers who have adopted the *a priori* method have often argued from feigned cases, but they have not always observed this rule. We will only cite one conspicuous instance of the violation of this principle. In some attempts that have been made to shew that an increase of the currency can have no effect in increasing the production of wealth, but would only raise the price of existing commodities, it is sometimes argued in this manner:—"Suppose," it is said, "people were to awake some morning and find all their money doubled in quantity, what would be the effect? Simply that the prices of all commodities would be doubled." But the answer to this mode of arguing is, that it is an impossible case, and no principle can be deduced from such a case. It is not possible that such a thing should happen, and all results attempted to be deduced from such an example must be discarded as futile. If we would deduce principles of any worth from a supposed case of the doubling of the quantity of the currency, we must strictly follow the method in which it would *really* take place.

50. And it is just in this very thing that the genius of the Platonic Philosophy consists. It is essentially Inductive. Only Plato applied the Inductive method to the ideas of the moral world, Bacon to the ideas of the physical world. That Plato was not always successful any more than Bacon, is true. But the genius of the philosophy of each was identical. But the immense and the undivided merit of Bacon was, that he saw and declared that Physical Inductive Science must *PRECED* Moral Inductive Science. That Natural Science was the nursing mother of all science, that in it are to be found the types and standards of reasoning, to which all other reasoning is to be referred, that it is the *παιδαγωγός* to lead us to the study of Moral Science. And we insist upon this the more strongly, because it has been most strangely overlooked and denied. We have seen

by the extract we have given above from J. B. Say, his extraordinary assertion that Bacon was completely ignorant of the connection between the two! And others, too, have fallen into a similar error, and that it is a most grievous error, we have proved by extracts from Bacon himself. Hence, we see that there are two great divisions of Inductive Science, the one Physical, and the other Moral, both absolutely identical in their genius, both to be followed and cultivated by the same method. Now, Physical Science often receives a name from the character of the method by which its general laws, or Axioms, are proved, that is, by observation and *experiment*, and from this it is often called EXPERIMENTAL PHILOSOPHY. Now, it seems to be of some advantage to have a name for that great division of Inductive Science, whose Axioms are tested by observation and *feigned cases*, and the name of EXPERIMENTAL PHILOSOPHY seems not inappropriate. Hence, we have Inductive Science divided into two great provinces, Physical and Moral, which may be respectively named Experimental and Experiential Philosophy, and then we have this principle, that POSSIBLE FEIGNED CASES are to EXPERIMENTAL Science, what EXPERIMENTS are to EXPERIMENTAL Science.

51. As soon as we admit this, it follows that the whole of that great body of Inductive Logic, the foundations of which were laid by Bacon, and which has been subsequently extended and added to by other writers since his time, for the purpose of testing Axioms or general principles, by due experiments, is applicable to test the principles of Experiential Science by properly devised feigned cases.

52. There is, however, a point of difference to be noted. In Experimental Science we can always predict that the result will be true in each particular instance. In Experiential Science, it is only possible to say that such and such results will take place, but it is not possible to say that any given individual will do them. The properties in the physical world are absolutely uniform, and every individual is constrained by the Supreme Artificer to obey them. We know that every individual magnet will attract every individual needle. But, though we know that in Political Economy, wherever a profit is notoriously to be made, *somebody* will make it, yet we cannot say what individual will do it. Thus, if the rate of discount were 6 per cent. at Paris, and 4 per cent. in London, we know that it would be profitable to fabricate Bills of Exchange for the purpose of exporting bullion from London to Paris, and we can infallibly say that it will be done, though we cannot say that this or that merchant will do it. And thus, knowing that it will infallibly be done by some one, we are enabled to form the general principle, that the rates of discount between the two places must be brought within a certain degree of equality to stop the flow of bullion from one place to the other. Now, this general principle is just as true and certain as the law of gravitation, and it gives us a true and certain law to guide us under certain circumstances, and it gives a final and conclusive answer to all economists who think that the rate of discount can be kept uniform in this country, without reference to the current rates in other countries.

53. Having then gained this solid foundation, that possible feigned cases are in every respect analogous to experiments, that they may be devised with the same unlimited variety, and that that great body of well settled and impregnable Inductive Logic, built up and matured by the care and sagacity of Bacon and other eminent men, is to be applied to test the Axioms of Experimental Science, we shall now proceed to see whether it is possible to establish Axioms regarding the exchangeable relations of quantities, exactly analogous to the laws of mechanics, and which shall be proved to be true by the very same standards of reasoning, and we shall also test the doctrines of some writers of great influence in Political Economy, by the same standard.

54. And first of all let us observe Bacon's precepts regarding the formation of Axioms in Physical Science. In these we have only to substitute "feigned cases" for "experiments" throughout, and we shall obtain an Inductive Logic for Experimental Philosophy. He says, *Distributio Operis*, "Those who aspire to discover and to know, and not to guess or divine, not to devise mimic and fabulous worlds of their own, but to penetrate and dissect nature herself, must seek everything from the facts themselves. Nor can any genius, or thinking, or argument, sufficiently supply the place of this labour, search, and world-wide perambulation; no, not if all men's wits could meet in one." That an entire reconstruction of science was necessary, of which the foundation must be laid in a description of nature, which was not to be turned at first so much to actual fruition, as to throw light on the discovery of causes, and to supply the infant science with the first nourishment. "For though we are chiefly in pursuit of the practical and active part of science, we must wait for the time of the harvest, and not reap the moss, or the green corn. For we well know that general principles once rightly discovered, will carry whole troops of works along with them, and will produce effects, not in single instances, but in multitudes." And in *Nov. Org. Lib. I., Aph. 70*, in enforcing the necessity of carefully devised experiments, (or feigned cases,) and the care and attention necessary to contrive a variety of them, and to extend the inquiry generally, "For no one successfully investigates the nature of a thing in the thing itself." And he advises us to imitate the divine wisdom, which in the first day created light only. So we must endeavour to gather from all sorts of experience, and to discover true causes, and general principles, and to devise "*experimenta lucifera*" for this purpose, or instances contrived with the express view of testing general principles, before we go to practice. Let us now, then, endeavour to apply the preceding principles to the ascertainment of the Axioms of Political Economy. That is, let us apply the well-known and settled laws of Inductive Logic to decide which of several proposed Axioms are to be admitted as true.

55. There is one law of Inductive Logic, which has been discovered and settled since Bacon's time, which we shall find to be of supreme importance in governing our decision. It is the *Law of Continuity*. "The Law of Continuity," says Dr. Whewell, (*Phil. Ind. Sci., Vol. II., p. 413*), "consists in this proposition:—*That a*

quantity cannot pass from one amount to another, by any change of conditions, without passing through all intermediate degrees of magnitude, according to the intermediate conditions. And this law may often be employed to correct inaccurate inductions, and to reject distinctions which have no real foundation in nature. For example, the Aristotelians made a distinction between motions according to nature, as that of a body falling vertically downwards, and motions contrary to nature, as that of a body moving along a horizontal plane; the former they held became naturally quicker and quicker, the latter naturally slower and slower. But to this it might be replied, that a horizontal line may pass, by gradual motion through various inclined positions, to a vertical position, and thus the retarded motion may pass into the accelerated, and hence there must be some inclined plane on which the motion downwards is naturally uniform; which is false, and therefore the distinction of such kinds of motion is unfounded." That is to say, there is no point whatever at which the one kind of motion passes into the other. And again, p. 415:—"The evidence of the Law of Continuity resides in the universality of those ideas which enter into our apprehension of the laws of nature. *When of two quantities, one depends upon the other, the Law of Continuity necessarily governs this dependence.* Every philosopher has the power of applying this law, in proportion as he has the faculty of apprehending the ideas which he employs in his induction, with the same clearness and steadiness which belong to the fundamental ideas of quantity, space, and number. To those who possess this faculty, the Law is a *Rule of very wide and decisive application*. Its use, as has appeared in the above examples, is seen rather in the disproof of erroneous views, and in the correction of false propositions, than in the invention of new truths. *It is a test of truth, rather than an instrument of discovery.*" Which, we may observe, is the true function of all Logic, both Aristotelian and Baconian,—formal and inductive.

56. Now let us apply the principles we have endeavoured to establish regarding possible feigned cases, and the law of continuity, to the verification of an axiom regarding the general law of price in Political Economy. We have (*Elements of Political Economy; and PRICES, THEORY OF*) devised two possible feigned cases of the *extremes* of price. We have shewn that when it is extremely low it depends upon what is commonly called, the law of *supply and demand*, and we have shewn that when it is extremely high it also depends upon the same law of *supply and demand*. We have shewn that no other law whatever, but that of supply and demand, operates at the extreme points of price; hence, we affirm, by virtue of the *Law of Continuity*, that the same law of demand and supply, universally, solely, and exclusively, regulates price at all intermediate points, in all cases whatever, and at all times.

57. By virtue, therefore, of the preceding considerations, we take our stand in this impregnable position. We affirm that this induction is as conclusive as any in existence, and that no criticism, or cavils, or objections, can shake it more than the ripple of the summer sea can wash away Ailesa Craig. Standing on this solid foundation, we can affirm that if any other law whatever be proposed

as regulating price, at any intermediate point between the extremes, other than *demand and supply*, it *must* be unsound; and if any one be proposed which does, *apparently*, in some instances influence price, we may affirm that it will be found to be only a particular case of the general law, and that genuine Inductive Logic will prove that it is not the true law.

58. It is well known that a different law from supply and demand has been proposed by a writer, who, it is undeniable, has exercised an influence over opinion in this country, only second to Adam Smith himself—Ricardo; and we must now bring the law he has proposed, and which has been very widely received, to the test of Inductive Logic. Ricardo's Law is, that *cost of production regulates value*.

59. Ricardo, page 2 of his celebrated work, says, "There are some commodities, the value of which is determined by their scarcity alone. No labor can increase the quantity of such goods, and, therefore, their value cannot be lowered by an increased supply. Some rare statues and pictures, scarce books and coins, wines of a peculiar quality, which can be made only from grapes grown on a particular soil, of which there is a very limited quantity, are all of this description. Their value is wholly independent of the quantity of labor originally necessary to produce them, and varies with the varying wealth and inclinations of those who are desirous to possess them.

"These commodities, however, form a very small part of the mass of commodities daily exchanged in the market. By far the greatest part of those goods which are the objects of desire, are procured by labor; and they may be multiplied, not in one country alone, but in many, almost without any assignable limits, if we are disposed to bestow the labor necessary to obtain them.

"In speaking then of commodities, of their exchangeable value, and of the laws which regulate their relative prices, we mean always such commodities only as can be increased in quantity by the exertion of human industry, and on the production of which competition operates without restraint."

60. Now, we object, *in limine*, to this method of conducting the inquiry. To tear and dis sever a small portion of the phenomena from the entire body, is to violate the very first principles of Inductive Science. Designedly and systematically to exclude all phenomena from the investigation, which do not square with some theory, and to lay down a law which is applicable to them only, and in direct opposition to the laws which regulate other phenomena, is at variance with all modern science. If Ricardo had wished to consider only a particular class of phenomena, the true way would have been to take the general law, and shew the particular circumstances that modified it in that class of cases. But Ricardo has done exactly what an Astronomer would do if he were systematically to exclude from investigation all phenomena but those which agreed with the Ptolemaic system, and propounded a set of laws which only *apparently* explained these phenomena, and were directly opposed to the laws of all other celestial phenomena. He has specifically excluded from consideration all but a certain class of phenomena, and for the explanation of these he pro-

poses a law, which is not the general law modified to suit that one class of cases, but which is in direct opposition to the laws which regulate all other phenomena.

61. Now, we say that this general statement of his mode of inquiry is sufficient to insure its condemnation by any one acquainted with modern science; even before we come to examine particular objections to it, or shew what specific principles it violates. In the first place, we must say, that the proportion of economic quantities which are beyond the pale of the Ricardian law is very much greater than he is disposed to allow. But we shall shew that even in the class of cases he does consider his law is not the true one, but they are particular cases of the general law.

62. In the first place, we must observe this as an essential property of any general expression, *that it must exhibit on the face of it all the elements which influence its action*. Now, it is perfectly undoubted that *quality* is one element that influences value. But what trace of it appears on the face of the law that *cost of production regulates value*? This, then, is one essential particular in which the Ricardian law is manifestly defective.

63. Let us now call to mind a few of the Baconian precepts regarding the formation of Axioms, which are undoubted portions of Inductive Logic. He says, *Nov. Org. Lib. I., Aph. 46*. "The human understanding, when it has once adopted an opinion, (either because it is the received opinion, and believed, or because it pleases it,) draws all things else to support and agree with it; and although there be a greater number and weight of instances opposed to it, yet it either takes no notice of and despises these, or else by some distinction sets these aside and rejects them, and so prejudging the matter to a great and pernicious extent, so that the authority of its former conclusions may remain untouched." A very picture, surely, of the Ricardian mode of inquiry! He then says, "This mischief insinuates itself with great subtlety into philosophy and the sciences, in which an opinion, once taken up, colours and reduces to agreement with itself, all others, even though they are far stronger and better. But even passing over that vanity and pleasure I have spoken of, it is still the peculiar and constant error of the human mind to be more moved and influenced by affirmative than by negative cases; whereas it ought to hold itself entirely impartial to each; nay even, in the formation of a true axiom, the *negative instance is the more forcible of the two*." So also *Parasceve IV.*, "For that fashion of taking few things into account, and deciding with reference to a few things only, has been the ruin of everything."

64. In this place we cannot of course repeat the instances we have given elsewhere, and to these we refer (*PRICES, THEORY OF*); we can only state the conclusions. We have shewn, then, by the instance of two strata of coals, that commodities may be produced under precisely the same circumstances in all respects of cost of production, and differ only in *quality*, and the value will be extremely different. And this is a *negative* instance of decisive authority and weight. By all the laws of Inductive Science, this single instance is fatal to the Ricardian Law.

65. But besides this we have shewn by a series of examples, partly drawn from actual observa-

tion, and partly from feigned cases, that no change in cost of production can produce any change in value unless accompanied by a change in the state of supply and demand. We have also shewn that a change in the state of supply and demand produces a change in value without any change in the cost of production, which decisively proves that *cost of production is not the regulator of value*.

66. Moreover, the object of science being to discover the laws which produce effects, if we discover the true law, then we know how to produce any required effect. And here Bacon's third Aphorism applies:—"Science and human power agree in this, that ignorance of the cause prevents any required effect being produced. For nature is not to be governed except by obeying her; and that which in Theory is the cause, in Practice is the rule." Now, from this Aphorism it follows, that if the law that cost of production regulates value is theoretically true, if we wish practically to influence value, we must act upon the cost of production. That is to say, if we choose to increase the cost of production, we can thereby increase the value, a consequence which every sensible man knows to be utterly absurd. And this is the very practical error upon which a large proportion of those unhappy proceedings, named strikes, have been founded. It is perfectly certain that many of them have been brought about by the persuasion of the workmen, that if their masters paid them higher wages, they could compel the public to pay higher prices. A most miserable delusion, which has brought thousands and thousands of honest and hardworking, but deluded, men and their families to ruin. Yet it is the logical consequence of such doctrines of Political Economy. But we know perfectly well that if we act upon the relation of supply and demand any effect in value may be produced, which proves that the latter is the true rule.

67. We have also shewn that, taking the two quantities *Cost of Production* and *Value*, as apparently regulating each other, it is just as often value that apparently regulates cost of production, as the reverse, because when the price of a manufactured article rises, wages often rise too, when the price falls wages fall too. Hence, even adopting the Ricardian phraseology, it is just as often value that regulates cost of production as the reverse.

68. But the real fact is, that price, or value, and cost of production are wholly independent of each other, and each of them depends entirely upon the law of supply and demand. The difference between these two quantities is the *Profit*, and when these two quantities cross each other, it is *over-production*.

69. We have also shewn, that in many cases, probably even in most, a diminution in the cost of production is followed by a diminution in price; but, in such cases, the diminished cost of production is invariably accompanied by an increase of quantity, and that no diminished cost of production without an increase of quantity, would produce such an effect. Hence, the increase of the quantity is the real cause of the change of value.

70. A consideration of the examples adduced leads us to the following conclusions:—

1. No change in the cost of production will

cause a change in value, unless it is accompanied by a change in the relation of supply and demand.

2. A diminution in the cost of production, when effected without an increase of the quantity produced, goes entirely to the benefit of the producer.

3. A diminution in the cost of production, in cases where the quantity of the produce can be increased without limit, goes entirely to the benefit of the consumer.

4. A diminution in the cost of production in cases where the quantity can be increased, but not without limit, goes partly to the benefit of the producer, and partly to the benefit of the consumer, and this benefit is divided between the two, in the inverse proportion of the extra quantity added, compared to the previously existing consumption.

71. It is sometimes, however, considered pedantic to attempt to attain modes of expression of scientific accuracy in Political Economy. But, if such views had prevailed in Physical Science, where would it have been at the present day? That the Ricardian law is *apparently* true in the majority of cases, is undoubtedly true. But this is just one of the tests of a scientific mode of treatment. It is exactly parallel to the case of the first law of motion, and those who adhere to the modern opinion on the subject, in preference to the old one, are bound in consistency to adopt the law of supply and demand, in all cases, rather than that of cost of production. It is exactly in deciding upon the rival pretensions of these two proposed laws, that the function of Inductive Logic consists. It is perfectly indisputable in Experimental Science, that if two laws were proposed to explain any given class of phenomena, one of which explained all the phenomena of every description without exception, and the other explained only, apparently at least, that single class, and was directly opposed to the general law, in such a case the law which only explained one class of cases, would be unhesitatingly rejected. So we may consider this as a true law in Political Economy. *That, if two or more forms of expression will explain or account for any class of phenomena regarding price, or the change of price, that form of expression only is to be held as the true one, which explains ALL the phenomena in the science, and not that single class of cases only.* And this law shews that the Ricardian Axiom is to be rejected as an expression of scientific truth. And if it is retained at all, it must be clearly understood that it is a mere popular form of expression, as we speak of the sun *setting* in popular language, knowing at the time that it is not true scientifically. Or perhaps it would be better to modify it in some such way as this,—*If the cost of production of an article is increased or diminished, a corresponding change in its value generally follows.*

72. The only way to construct a true scientific Axiom regarding price, or value, is to consider all the causes that can affect it. There are a certain set of causes which tend to elevate it, and a certain set which tend to depress it. Price, then, will vary, *directly* as the causes which tend to elevate it, and *inversely* as those which tend to depress it. And the reason why the law of *supply and demand* is the true one, is, that it can be shewn that it includes all these causes.

73. We have observed in the extracts given from Mr. Mill, that he considers as one reason of adopting the *a priori* method of reasoning in Political Economy, the difficulty of obtaining *experimenta crucis*. We think that he has greatly overestimated this difficulty, because it is quite as easy to devise feigned cases to answer the purpose, as experiments. But we have no need even of this; matters of pure observation will furnish us with decisive instances of *crucial* cases. The example of strata of different qualities of coal in the same mine, where the different products obtained under precisely the same circumstances of cost of production, bear different values on account of their different qualities, is a very strong and decisive *crucial* case. But Ricardo himself has furnished us with one which is absolutely decisive of the merits of his system. In speaking of the relative value of gold and silver, he maintains, as he was in consistency bound to do, that their relative value depends solely upon the labor necessary to produce them. He says, (*Principles of Political Economy, &c., 3rd Edit., p. 421*): "Gold and silver, like all other commodities, are valuable only in proportion to the quantity of labor necessary to produce them, and bring them to market. Gold is about fifteen times dearer than silver, not because there is a greater demand for it, *nor because the supply of silver is fifteen times greater than that of gold, but solely because fifteen times the quantity of labor is necessary to procure a given quantity of it.*" Now, it is not possible to have a more complete example of a *crucial instance* than this very case selected by Ricardo himself. Because it is entirely at variance with known facts. Such an assertion, as that it is fifteen times more expensive to obtain gold than silver, is absolutely inconsistent with well ascertained knowledge on the subject. Moreover, it is well ascertained that the supply of silver (before the discoveries in California and Australia) was not *fifteen* times, but *forty* times as great as that of gold. The reason why silver, which was forty times as abundant as gold, was only fifteen times less valuable, we have shewn to be exactly the same as makes small farms more valuable, comparatively speaking, than large ones, and small houses than large ones. Thus, the Ricardian theory is directly at variance with indisputable facts, and this case is sufficient to shew the fallacy of his system.

73. Moreover, the Ricardian law is a direct contravention of the *Law of Continuity*. He says, p. 460:—"It is the cost of production which must ultimately regulate the price of commodities, and *not*, as has been often said, the proportion between the supply and demand. The proportion between supply and demand may indeed for a time affect the market value of a commodity, until it is supplied in greater or less abundance, according as the demand may have increased or diminished; but this effect will be only of temporary duration." That is to say, Ricardo maintains that quantity in changing its price depends at one point on one law, and at another point, on a totally different law. A flagrant breach of the *law of continuity*. He then says:—"The opinion that the price of commodities depends solely on the proportion of supply to demand, or demand to supply, has become almost an Axiom in Political Economy, and has been the source of much

error in that science." He then criticises the doctrines of Lord Lauderdale, which are beyond all doubt the true ones. He says:—"Commodities which are monopolized either by an individual, or by a company, vary according to the law which Lord Lauderdale has laid down; they fall in proportion as the sellers augment the quantity, and rise in proportion to the eagerness of the buyers to purchase them; their price has no necessary connexion with their natural value; but the prices of commodities, which are subject to competition, and whose quantity may be increased in any moderate degree, will ultimately depend—*not on the state of demand and supply*, but on the increased or diminished cost of their production." Thus, we see that Ricardo again declares that, at every other point but one, in the range of prices, the law of demand and supply holds good, but that at *one* point it is *not* demand and supply, but cost of production. Which is the identical error which Dr. Whewell quotes as having been committed by the Aristotelians.

74. Equally objectionable are the views of Mr. Mill, who in many respects is a disciple of Ricardo. He says, (*Principles of Political Economy, &c., Vol. I., p. 556*), "It is, therefore, strictly correct to say that the value of things which can be increased in quantity at pleasure, does *not* depend (except accidentally and during the time necessary for production to adjust itself,) upon demand and supply; on the contrary, demand and supply depend on it." Also he says, "To recapitulate; demand and supply govern the value of all things which cannot be indefinitely increased; except that even for them, when produced by industry, there is a minimum value determined by the cost of production. But in all things which admit of indefinite multiplication, demand and supply only determine perturbations of value during a period which cannot exceed the length of time necessary for altering the supply." So also, *Vol. II., p. 10*, "Money is a commodity, and its value is determined like that of other commodities, temporarily by demand and supply, permanently, and on the average, by cost of production." It is quite clear that these doctrines involve exactly the same breach of the law of continuity as the extracts we have given from Ricardo. Nay, Mr. Mill himself had warning to reconsider this law of cost of production, because in speaking of the value of certain products, he says, *Vol. II., p. 107*, "Since cost of production here fails us, we must revert to a law of value *ANTERIOR* to cost of production, and *MORE FUNDAMENTAL, the law of supply and demand.*" Here is the very principle admitted that we have been contending for, that the law of supply and demand is the great fundamental law which underlies all cases of value. When Mr. Mill admits that the law of cost of production fails in the instances he alludes to, he should have seen that it fails in *all* cases. The causes or elements which influence value must be the same in all cases, though the potency of each element may vary. By the law of continuity, the true principles which govern value in the case of one commodity, must govern the value of *all* commodities, and the causes which influence it at one point of value must be the same which influence it at *all* points. Now, if Mr. Ricardo and Mr. Mill had laid down that, in a particular class of cases, certain circumstances act upon the relation of supply and

demand so as to produce certain effects on value, they would have been perfectly right, there would have been no breach of the law of continuity. They would have shewn that in that class of cases the general law was modified in a particular way; but what they have done is this, in this class of cases they have extruded the general law altogether; they maintain that it does not apply at all, but that a different law altogether governs these cases. But against this all modern science rebels; it is a complete rupture of the law of continuity, not only in Political Economy itself, but it is a breach of continuity between Political Economy and all the Physical Sciences, because such a mode of argument would not be permitted in any one of them.

75. Now, the real facts are these. Profit is the object of all production. If production can be indefinitely increased, and extraordinary profits are to be made, an increase of production takes place, and by increasing the supply faster than the demand, lowers the value; if production is already so great that the value is below the cost of production, production ceases, the supply is diminished until the value is raised, by and through the limitation of supply, to exceed the cost of production, and afford usual profits. But all these changes take place by acting upon supply and demand, and only by that means. So that it appears that in such cases, traders adjust the supply to the demand, so as to afford usual profits. Thus the authority of the universal and fundamental law is fully preserved, the law of continuity is maintained, and the phenomena of that class of cases are truly accounted for, and shewn only to be particular cases of the general law, and we have the whole subject summed up in these two laws:—

1. THE RELATION BETWEEN SUPPLY AND DEMAND IS UNIVERSALLY THE ONLY REGULATOR OF VALUE.

2. *In such cases as production can be increased without limit, people learn to adjust the supply to the demand, so that the value of the article will nearly agree with its cost of production.*

76. But the mischievous consequences of the Ricardian doctrine of value, are far more widely extended than the mere formation of an erroneous Axiom. For the conception that *labour is the foundation of all value* has been the ruin and destruction of what we call the second school of Political Economy, (PRELIMINARY DISCOURSE). In the first place, it has narrowed the field of Political Economy to the smallest class of objects it treats about. For the quantities of which labor is apparently the cause of value, is by far the *smallest* class of Economic entities. It is this preconceived idea that labor must be the cause of value, and the necessity of squaring the whole theory of value with this conception, that has led Mr. McCulloch to class the growth of a tree, or the fermentation of wine or beer in a cellar, as *labor*! and which has caused some of the errors upon which his Theory of Absenteeism rests. The idea that labor is the cause of value is utterly inapplicable to far the largest proportion of objects. What has labour to do with the value of an instrument of credit? If a man picks up a diamond, what has labor to do with its value? What has labor to do with the value of deferred payments of all sorts? or with the value of land in towns? If labor is the foundation of value, how is it that a

vast deal of labor may be bestowed upon a thing and it shall have no value? If labour is the foundation of value, the rubbish in which a diamond is imbedded ought to have the same value as the diamond itself; or if a man, after a considerable amount of labour, were to find a number of diamonds of very different qualities together, they ought to be of the same value. Consequences which are notoriously erroneous. This, then, clearly proves that labor is not the *cause*, or the *source* of value, though in the majority of cases it is intimately associated with it. And these examples are adduced for the purpose of putting "Nature to the torture," and "trying Axioms as if by fire," and they are as certain and conclusive as any experiments whatever in experimental science. And it is by the judicious use of these *feigned cases*, and by subjecting them to the same rigorous tests as is usually done in Experimental Science, that Experiential Philosophy is to be raised to the rank of the exact sciences. Now, when we form this true conception, that the root and origin of value is *human desire*, and that whatever satisfies a human want, and for which men will give anything in exchange, is an independent entity. When we understand that any ОБЪЕКТ, whatever its nature be, material or immaterial, enduring or evanescent, which men will give something to obtain, is an independent quantity, and that the values of all entities depend purely on the intensity of the desire for them, and on the limitation of their quantity, no matter from what cause that limitation may proceed. And that all changes in value proceed, and proceed only, from a change in one of these quantities, either the intensity of the desire, or the limitation of the quantity. When we understand that a diamond is not valuable because a man picks it up, but a man picks it up because it is valuable; that, in truth, it is not labor that confers value, but value that attracts labor, we at once obtain a definiteness of conception of the objects we are treating about, and of the end in view, which fits the subject to be raised to the rank of an exact science.

77. Now, the question involved in the acceptance or rejection of the Ricardian system of Political Economy is no slight one; because it is, in fact, the rejection or the acceptance of all Modern Science. Ricardo and Modern Science cannot stand together. If we are to receive Ricardo, Bacon has written in vain, the starry Galileo with his woes, is a lesson lost to mankind, and that continuity of the sciences which Bacon was the first to inculcate, and so many eminent men have adopted and sanctioned since, is utterly broken. The Ricardian Political Economy is a battle-field upon which we are to decide whether we are to go back to the physics of the schoolmen, or to adopt those of Galileo. And when the real nature of the question is stated in the form of this decisive issue, there can be little doubt what the answer will be.

78. These observations have already proceeded to such a length that we have only space to consider one more leading instance of the transgression of the Baconian laws in the modern doctrines of Political Economy. In respect to the formation of Axioms, there is nothing more remarkable than the earnestness with which Bacon warns us against flying at the highest and most general ones first. In fact, it is in the very formation of

the highest Axioms, or first principles, that he places the strong contrast of his method of inquiry to the prevailing one. He says, *Nov. Org. Lib. I., Aph. 19*, "There are, and there can be, only two ways of investigating and discovering truth. The one flies from the senses and particulars to the most general Axioms, and from these principles, whose settled truth it assumes, it proceeds to judge and discover the middle Axioms. And this is the mode now in use. The other, from senses and particulars, forms principles, ascending gradually and continuously, so that it arrives at the most general Axioms last of all. And this is the true way, but not yet tried." So *Aph. 24*, "Axioms established by argument can never be of any avail for the discovery of new works, because the subtlety of nature is many times greater than the subtlety of argument. But Axioms, duly and properly formed from particulars, easily discover the way to new particulars, and so render the sciences active." So *Aph. 69*, "*That method of discovery and proof, by which the most general principles are first settled, then the middle Axioms are tried and proved by them, is the MOTHER OF ERROR AND THE CURSE OF ALL SCIENCE.*" So *Aphs. 103, 104*, "For our road does not lie in a plain, but ascends and descends. But yet the mind is not to be allowed to jump and to fly from particulars to the remote Axioms, and to those of almost the highest generality, (such as are called the first principles of arts and things), and prove and frame the middle Axioms by them as truths that cannot be shaken, which has been the practice hitherto. * * But then, at length there will be some good hope for the sciences, when we ascend from particulars to lesser Axioms, by a true scale, and by continuous steps, not interrupted or broken, and then to the middle Axioms, one above the other, and last of all, to the most general." So *Aph. 125*, "For the ancients themselves exhibit their form of investigation and discovery, and their writings shew it on their very faces. And that form was this: From a few examples and particulars (with the addition of common notions; and, perhaps some portion of the received opinions which pleased them most), they flew to the most general conclusions on the principles of the sciences, and, taking the truth of these as fixed and immovable, they proceeded, by means of the middle Axioms, to bring out and prove the lower principles—from which they framed the art. After that, if any new particulars and instances were brought forward and adduced, which were at variance with their dogmas, they cunningly brought them to agree with them by distinctions or modifications of their rules, or else coarsely got rid of them as exceptions; while to such particulars as were not opposed to them, they laboured pertinaciously to assign causes in conformity to their principles. But this was not the description of nature, or the experience, which was required—far from it, indeed; and that flying off to the most general principles was the ruin of all."

79. Every one who knows anything of the history of science, will readily call to mind the mode of argument which these sentences are levelled at. We can only refer to one as an amusing example, quoted by Sir John Herschel, from Galileo, of the mode of reasoning of the Aristotelians. The heavenly bodies, they said, must

move in perfect curves, but circles are the only perfect curves, therefore the heavenly bodies must move in circles. And this was a specimen of their beginning at the highest generalities and so reasoning downwards. Whereas the path the heavenly bodies did move in was discovered by laborious induction and not by *a priori* reasoning. Now, a very close parallel to this mode of reasoning is adopted by an influential class of thinkers in Political Economy at the present day. What quantity of paper currency may be safely issued, and the modes of ascertaining what are the proper tests for deciding whether it is over-abundant or not, are of the very first importance in Political Economy; they are, in fact, some of its highest generalities. Now, the writers alluded to fly at once to this highest generality, and lay it down as a dogma, "*That when bank notes are permitted to be issued they ought to be exactly equal in amount to the bullion they displace.*" Now this axiom itself, which is one of those highest generalities which Bacon alludes to, is not arrived at by any process of induction, but is a piece of pure DOGMATISM. It is a mere arbitrary assertion, not based upon any reasoning whatever. It is an exact parallel to the worst specimens of dogmatizing in Natural Philosophy, which it was the very object of Bacon's philosophy to overthrow. Now, the true way of obtaining the highest general principle of such a subject, is to proceed by a true induction, to discover what is the function of a metallic currency, and what influences its changes of value, then to ascertain what relations a paper currency bears to a metallic one, and how it is to be ascertained when a paper currency begins to be depreciated; and so step by step, by gradually proceeding from one principle to another, we shall at length attain the highest general principles of a paper currency. And when we proceed by this method we shall find that the dogma we have quoted above is a pure baseless fiction, having no more real foundation in nature than the Aristotelian notions of the movements of the heavenly bodies. But the result of that mode of arguing is this;—The persons who hold the theoretical opinion, wish practically to make legislation square with it, and they are very strong supporters of the Bank Act of 1844, on the supposition that that Act really carries that theory into practice. Now, any one who takes the trouble to read the article BANKING, in this Dictionary, and understands the mechanism of it, will see that the idea that the Bank Act of 1844 does actually carry this theory into effect, is one of the most signal delusions that ever deceived the country.

80. We must now reluctantly bring these remarks to a close. We have only selected a few prominent instances of the important effects of accurate notions, and not exhausted them. The considerations we have suggested would require a volume for their proper development, and duly treated would touch the foundations of all science. For somewhat fuller details we must refer to the PRELIMINARY DISCOURSE, and to each separate leading term in the subject. We shall have done some little good, if we call attention to the causes of the very incomplete state of Political Economy at the present time, and shew that this is not due to anything in the nature of the science itself, but to the method in which it has been treated. There is but one possible mode of succeeding—namely,

to follow the brilliant example set by Physicists. Almost all erroneous doctrine springs from erroneous definition. The only way to remove these *idola*, fallacies, or misconceptions, is to form true Definitions and Axioms by genuine Induction. The most eminent physicists thought no time lost, which was necessary to settle these elements, but Economists are apt to despise such things, and the consequence is, instead of the opinions of writers at the present day tending to uniformity, they are becoming more and more divergent every day. Theory and practice must be brought into harmony with each other. But, to elaborate a just theory from the facts, certain qualifications are absolutely indispensable:—1. A general knowledge of the mode of argument in Experimental Science, and a constant vigilance to see that the arguments in Political Economy are in strict conformity to the standards of reasoning in Natural Philosophy. 2. A technical knowledge of the law of instruments of credit, and some other things. 3. A technical knowledge of the mechanism of commerce and agriculture. Without these indispensable qualifications, it is a perilous task for any man to venture upon the troubled waters of Political Economy.

“Nave senza nocchiero in gran tempesta.”

When Galileo began to study Natural Philosophy he put aside mathematics, never dreaming that there could be any connection between the two; a sentiment, too, that appears in Bacon. Galileo very soon found out his mistake. Many persons at the present day may think that there is no connection between Political Economy and Natural Philosophy. They are in just as great an error as Galileo was. Political Economy is a science of causes and effects produced by the properties of men, and its types and standards of reasoning are to be found in the science which treats of the causes and effects produced by the properties of matter. In both equally, the Inductive Logic reigns supreme. The same general method of investigation is common to each. And there is the same hope and encouragement to expect future success, that the Athenian orator gave to his countrymen, because their failure arose—not from the nature of the enterprise, but from their own errors. So it is with Political Economy. The unsatisfactory state in which it is at present does not arise from the nature of the thing itself, but from its method of treatment. When Economists pay the same attention, as Physicists have done, to obtain true conceptions and axioms from reality itself by proper methods, and not by arbitrary dogmatism—when they proceed, step by step, Definition by Definition, Axiom by Axiom, principle by principle, in due and proper order, and maintain a proper unity of conception and principle, from the beginning to the end, it will be found that a vast and magnificent edifice of DEMONSTRATIVE truth may be reared up, and Political Economy will emerge from the haze

of controversy, a science as well defined, as self-coherent, as complete, and as harmonious as any in existence.

AYRES, HENRY,—Editor of the *Bankers' Circular and Financial Gazette*.

Financial Register of British and Foreign Funds, Banks, &c., &c., containing an account of the principal matters relating to the Finances of the United Kingdom, with a sketch of the Revenues, Expenditure, and Commerce of Foreign Nations; also an account of Foreign Banks, and Banking, and of Foreign Securities negotiated in London, &c., &c. London, 1857. To be continued annually.

This work contains in a moderate compass, a very large body of useful information.

The State of the Nation.—The Repeal of the Malt Tax.—The Re-adjustment of Taxation.

AZUNI, DOMINIQUE ALBERT,—Born at Sassari, in the isle of Sardinia, on the 3rd August, 1749. He became an advocate at Cagliari, and attained great reputation and practice as a commercial lawyer. He was named judge of the Consular Court at Nice, and a member of the Senate. When the French invaded Sardinia, he retired to Florence, where he published his Maritime Law of Europe, for which the Academy of Florence elected him a member. He wrote a paper to prove that the French were the first to use the compass. When Sardinia was united to the French Empire, Azuni was well received by the most eminent men of science there, and held several offices under the French Administration. He was appointed one of the committee to draw up the code of maritime commerce. When the French dominion came to an end, he was placed in much difficulty. But when the native government was restored, he was appointed judge of the Consulate, and director of the Library of the University, and he was elected a member of most of the learned Societies in Italy. He died 23rd January, 1827.

Dizionario universale ragionato della giurisprudenza mercantile. Nice, 1786-8.

Sistema universale dei principi del diritto marittimo d'Europa. Florence, 1795.

This last work was recast by the author, and published in French, as the

Droit maritime de l'Europe. Paris, 1798.

Dissertation sur l'origine de la boussole. Paris, 1805.

Histoire géographique, politique, et naturelle de la Sardaigne.

Origine du droit, et de la législation maritime. Paris, 1810.

Mémoires pour servir à l'histoire des voyages, maritimes des anciens navigateurs de Marseille. Genoa, 1813.

Mémoires pour servir à l'histoire de la Piraterie. Genoa, 1816.

B

BABBAGE, CHARLES,—F.R.S.L. and E., M.R.I.A., F.C.P.S., &c., corresponding member of the Institute of France. One of the most distinguished living men of science, was born about 1792. Educated at Trinity College, Cambridge,

where he graduated in 1814. He was elected a Fellow of the Royal Society in 1816. He was one of the founders of the Astronomical Society, and one of the originators of the Statistical Society of London, for the origin of which,

see his *Exposition* of 1851. In 1828 he was elected Lucasian Professor of Mathematics at Cambridge, which office he held till 1839. Mr. Babbage's chief reputation rests, of course, upon his treatises in Physical and Mathematical Science, which are beyond the limits of this work. But he has written also some excellent works in Political Economy.

A comparative view of the various Institutions for the Assurance of Lives. London, 1826.

On the Economy of Machinery and Manufactures. London, 1832. Fourth Edition, 1846.

This work was translated by order of the Governments of Prussia and Spain. It has also been translated twice into French, and also into Russian, and Italian.

Thoughts on the principles of Taxation, with reference to a Property Tax, and its exceptions. London, 1848.

A short but very excellent pamphlet, with some amusing anecdotes, on the Income Tax, shewing that all income of all sorts ought to be equally taxed.

The Exposition of 1851; or, Views of the Industry, the Science, and the Government of England. London, 1851.

An Analysis of the Statistics of the Clearing House, during the year 1839; with an appendix of the London and New York Clearing Houses, and on the London Railway Clearing House. London, 1856.

BABEUF, FRANCOIS NOEL,—Born at St. Quentin, in 1764, may be considered as the founder of Modern Socialism, or Communism. He was left an orphan at 16, and was apprenticed to an architect and surveyor at Roye, in the department of the Somme. When he was twenty-five years old, the French Revolution broke out, and he adopted its principles with enthusiasm, which he proclaimed with such violence in a paper he published at Amiens, called *Le Correspondant Picard*, that he was arrested and prosecuted; but he was acquitted on the 14th July, 1790. He was then appointed administrator of the department of the Somme, from which he was removed shortly to Montdidier. He was then charged with forgery, and indicted before the Court of the Aisne, but he had the good fortune to be again acquitted. Returning to Paris in July, 1794, he founded a paper named *Le Tribun du Peuple, ou le Défenseur de la liberté*, and, under the signature of *Caius Gracchus*, he wrote an article with the motto from Rousseau, *Le but de la Société est le bonheur commun*. He then adopted and advocated the most violent levelling and communistic doctrines (SOCIALISM). In 1796, Babeuf, the most violent in those violent times, had a considerable number of followers, who formed themselves into the *Babouviste Société*, or the *Pantheon*, with a secret executive committee of twelve. The conspirators gained over several of the regiments in the garrison in Paris, and the neighbourhood, and they also organized an insurrectionary army in the departments. They counted upon having 16,000 armed followers, and with these they intended to make a general attack on the Directory, the legislative assembly, and the chief of the staff, expecting to be joined by the artillery, and most of the other troops and the workmen. The conspiracy was on the very

point of exploding, when one of the number, Grisel, turned traitor, and denounced it to the Government. Barras caused Babeuf and sixty-five of his accomplices to be arrested on the 10th of May, 1797, at the very moment when they were met to give the signal to rise. The conspirators were immediately sent before the High Court of Vendôme. Babeuf and Darthé were sentenced to death, seven others to transportation, and the remainder were acquitted. Babeuf and Darthé immediately stabbed themselves in court, as soon as the sentence was given, but they were dragged out bleeding, and executed, on the 27th of May, 1797.

Babeuf was a remarkable person. He attempted to turn the current of the Revolution from political to social reform. He seems to have been the first to endeavour to bring to a practical experiment the visions of the philosophers of social dreamland—Plato, More, Campanello, Harrington, Bodin, Morelly, the latter of whom especially he seems to have taken as his model. It will be better to consider the doctrines of all this family of thinkers together, (SOCIALISM), than to treat them separately.

Besides his Communistic Journal above mentioned, he published, in conjunction with Audiffret,

Cadastre perpétuel, ou démonstration des procédés convenables, à la formation de cet important ouvrage. Paris, 1790. Dedicated to the National Assembly, and favourably received by it.

BABLOT LOUIS NICOLAS BENJAMIN,—Born at Vadenay, in Champagne, the 9th September, 1754. He studied at Rheims, and established himself as a physician at Châlons-sur-Marne, where he introduced vaccination. He died there, 24th November, 1802. Among several medical and other writings, including a poem, he left in Economy,

Mémoire sur la question proposée par l'Académie de Châlons, dans la séance publique du 25 Août, 1787; Quelles sont les causes les plus ordinaires de l'émigration des habitants de la campagne, vers les grandes villes, et quels seraient les moyens les plus propres à les retenir?

Examen de l'ouvrage de M. l'Evêque d'Autun (Talleyrand) intitulé, Des loteries. 1789.

Moyens d'assurer à chacun des individus de la République, sur la récolte actuelle, son approvisionnement en grains jusqu'à la récolte suivante. 1795.

BACON, FRANCIS, BARON VERULAM, VISCOUNT ST. ALBAN'S,—Born 22nd January, 1561,—died 9th April, 1626. The only Englishman, the intrinsic lustre of whose name ever shone through the plating of a title. Nay, in his case writers seem to be utterly nonplussed, for they will persist in calling him *Lord Bacon*, whereas they might just as well talk of *Lord Copley*, Baron Lyndhurst. Nay, even the standard new edition of his works, now publishing, is lettered "Lord" Bacon's Works. Bacon is entitled to be ranked among economical writers, because he has emphatically declared that the moral and political sciences are part of inductive philosophy; and his inductive logic is applicable to test the doctrines and axioms in Political Economy, in the same way as those of physical science, of

course *mutatis mutandis*. Moreover, in his essays, some sound economical remarks and observations occur.

BACON-TACON, P. J. JACQUES,—Born at Oyonnax in 1738. He travelled in Egypt and Greece, from whence he brought a bust of Alcibiades, which he attributed to Socrates, because that name was found on it. He then went to Russia, and taught languages at St. Petersburg. At the revolution he was chosen a Member of the Council-General of the Ain. In 1792 he went to Paris, and adopted literature as a profession. In 1796 the Directory gave him an appointment in the police, and employed him to watch public opinion in Lyons, and its neighbourhood. He was charged with forging assignats, but acquitted. Under the consulate and empire he kept away from Paris, and set up as a dealer in antiquities at Marseilles. In 1807 the court of Nantua sentenced him to three months' imprisonment, and a fine of 600 francs, for swindling. He came to Paris during the hundred days, and died there in 1817.

Adresse à l'Assemblée Nationale sur les billets patriotiques et les billets de sections, qui circulent à Paris, et dans les campagnes. Paris, 1791.

Nouvelle histoire numismatique des différents peuples anciens et modernes, et de tous les papiers-monnaies de l'Europe. Paris, 1792.

Opinion sur l'état de la France, sur le défaut de numéraire, et sur les moyens d'y remédier. Paris, 1791.

BACQUES, HONORE

Des arts industriels, et des expositions en France; recherches et études historiques, suivies de documents et de renseignements utiles, sur l'exposition de 1855. Paris, 1855.

BACQUET, JEAN,—An advocate, born at Paris, in the 16th century. In 1570 he was appointed counsel to the Treasury. He died in 1597.

Traité de l'établissement et de la juridiction de la Chambre du Trésor. Published in 1601. Best Edition, 1744. G.

BADEN, CHARLES FREDERICK, MAR-GRAVE OF,—Born at Carlsruhe, 22 November, 1728, and succeeded his grandfather in 1738. He studied at Lausanne, and travelled in France, Italy, England, and Holland, till his majority in 1750. He was of a liberal and enlightened mind, and greatly embellished his capital, and attracted many foreigners to it, by religious and political liberty. He kept his state out of the seven years' war, and in 1771 he succeeded his cousin, the Margrave of Baden-Baden. At the revolution he lost his property in Lorraine and Alsace. He made every compliance to maintain peace with France, even conniving at the seizure of the Duc d'Enghien, in 1804, and he published a decree against the emigrants, and followers of the Duke. In 1803 he took the title of Elector, and in 1806, Napoleon conferred upon him the title of Grand Duke. He adopted the Code Napoleon in his states, which he managed greatly to enlarge. He died 11 June, 1811.

Abbrégé des principes de l'Economie Politique. Carlsruhe, (Paris,) 1772.

A summary of the principles of Quesnay.

BAERT, ALEXANDRE BALTHASAR FRANÇOIS DE PAUL, LE BARON DE.—Born at Dunkerque, about 1750. He travelled in Russia, England, and Spain. In 1791 he was a member of the Legislative Assembly, and did all he could to save Louis XVI. After the 10th of August, 1792, he went to the United States, and travelled extensively, and did not return to France till after the 9th Thermidor. In 1815 and 1816 he sat in the Chamber of Deputies. He died at Paris, 23rd March, 1825. His work on England enjoyed the highest authority, and he was always consulted by Napoleon, whenever he wished exact information on English matters.

Tableau de la Grande Bretagne, de l'Irlande, et des possessions Anglaises, dans les quatre parties du monde. Paris, 1800.

Le Consommateur. Paris, 1802.

Mémoires historiques et géographiques, sur les pays situés entre la Mer Noire et la Mer Caspienne. Paris, 1799.

BAGARD, CHARLES.—Born at Nancy in 1696. Became a Doctor of Medicine, and died in 1772.

Recherches et observations sur la durée de la vie de l'homme. Nancy, 1754. G.

BAIGNOUX, P. PHILIP,—Formerly deputy for the department of the Indre-et-Loire.

Histoire philosophique de la réformation de l'état social en France, dans ses rapports avec l'inégalité des conditions, la propriété, les lois, les mœurs, et l'esprit général de la nation. Paris, 1829.

BAIL, C. J., LE CHEVALIER.—Born at Bethune, 29th January, 1777. He entered the army, and made the campaign in Belgium in 1793. In 1807 he was appointed to organize the administration of the Kingdom of Westphalia, of which he published the most complete and accurate statistical account extant. He held his office till 1818, when he retired on half-pay. He then devoted himself to the study of Political Economy, and besides several works on jurisprudence and politics, he published:—

Du cadastre considéré dans ses rapports avec l'Economie Politique, et la repartition des impôts. Paris, 1819.

Etat des Juifs en France, en Espagne, et en Italie, depuis le commencement du cinquième siècle de l'ère vulgaire, jusqu'à la fin du seizième, sous les rapports du droit civil, du commerce, et de la littérature. Paris, 1824.

Statistique des provinces de Westphalie. Göttingen, 1809.

Commerce des anciens et des modernes. l'Importation et la liberté du commerce des grains. Paris, 1814.

BAILEY, SAMUEL,—Of Sheffield, is the author of one of the most able little volumes on Political Economy in the language. It is entitled:—

A critical dissertation on the Nature, Measures,

and Causes of Value; chiefly in reference to the writings of Mr. Ricardo and his followers. London, 1825.

This treatise was written for the purpose of shewing the erroneous nature of the fundamental conceptions of Ricardo, Malthus, and some others, on the subject of Value, and the extraordinary self-contradictions and inconsistencies, into which they are betrayed by their neglect of observing a unity of conception on the point. And this it does with the most complete success.

It is one of the earliest treatises that revives and enforces the Aristotelian doctrine, that Value is an *external relation*, and not an *internal quality*, two things which are wholly inconsistent with each other, and this it does with a force and clearness which no other treatise of that period, which we are acquainted with, possesses.

It well deserves the careful perusal of every student in Political Economy. Not that it would be remarkable in any other science, because, in every other science, the necessity of obtaining clear, precise, and accurate fundamental conceptions, has long ago been recognized, nor would any writer have been listened to, one-half of whose work is a contradiction of the other half. But it is remarkable as carrying into Political Economy the same accuracy and precision as is demanded in every other science, and as shewing that all expressions and conceptions which are inconsistent with the fundamental ones, must be extirpated. Thus, having shewn that Value is an *external relation*, it follows that all such expressions as *absolute value*, *intrinsic value*, etc., are contradictory to the fundamental idea of Value, and should be abolished.

From the clearness and precision with which these views are enforced, this work, which is not by any means so well known as its merits deserve, is entitled to be held as one of those which have commenced the *THIRD ERA* of Political Economy—(*PRELIMINARY DISCOURSE*). We shall now give some extracts from this treatise, shewing how clearly the writer apprehended the true conception of Value.

He adopts, p. 4, the definition of Adam Smith, "That the value of an object expresses the power of purchasing other goods, which the possession of that object conveys." * * According to this definition, it is essential to value, that there should be two objects brought into comparison. It cannot be predicated of one thing considered alone, and without reference to another thing. If the value of an object is its power of purchasing, there must be something to purchase. *Value denotes, consequently, nothing POSITIVE or INTRINSIC, but merely the relation in which two objects stand to each other, as exchangeable commodities.*

"In the circumstance that it denotes a relation between two objects, and cannot be predicated of any commodity without an express, or implied reference to some other commodity, value bears a resemblance to *distance*. As we cannot speak of the distance of any object, without implying some other object, between which and the former this relation exists, so we cannot speak of the value of a commodity, but in reference to another commodity compared with it. A thing cannot be valuable in itself, without reference to another thing, any more than a

thing can be distant in itself, without reference to another thing."

"It follows, from this view of value as a *RELATION*, that it cannot alter as to one of the objects compared, without altering as to the other. It would be an absurdity to suppose that the value of A to B could alter, and not the value of B to A; that A could rise in value to B, and B remain stationary in value to A; an absurdity of much the same kind as supposing that the distance of the earth from the sun could be altered, while the distance of the sun from the earth remained as before."

He sees well that the term equality of values of two quantities, necessarily implies the nature of ratios. He says, p. 6,—"It may be objected to this representation of the relative nature of value, that when we say the value of A is equal to the value of B, the expression implies a quality intrinsic, and absolute in each; for, otherwise, how could we affirm that an equality existed between these two values? If the term denotes merely a relation between A and B, would it not be absurd to talk of the equality of their values, just as it would be absurd in speaking of the distance between the sun and the earth to talk of an equality of their distances from each other? * * * It will be found that in speaking of the value of A being equal to the value of B, we are led to use the expression by the constant reference which we unavoidably make to the relations of these commodities to *other commodities*, particularly to money; and the import of our language, in its whole extent, is that A and B bear an equal relation to a third commodity, or to commodities in general. * * * If we wish to know whether A and B are equal in value, we shall in most cases be under the necessity of finding the value of each in C; and when we affirm that the value of A is equal to the value of B, we mean only that the ratio of A to C is equal to the ratio of B to C."

He then shews well, that when we adhere to the conception of value being a relation, any such thing as a commodity of invariable value is an impossibility. He says, p. 9,—"The relative nature of value has not, it appears to me, been distinctly seen, or uniformly kept in view, by our best writers on the subject. Mr. Ricardo, for instance, who agrees with Dr. Smith in his definition of value, asserts that if any one commodity could be found, which now and at all times required precisely the same quantity of labor to produce it, that commodity would be of unvarying value."

"If value, however, denotes merely a relation, this proposition cannot be true. We may ask to what would this commodity bear an invariable value? what is the correlative? would it bear the same value to all other commodities? It might be so, it is true, but certainly not in consequence of being produced by an unvarying quantity of labor; for, while the labor in this instance remained a fixed quantity, yet, if the labor in other commodities were increased or diminished, the relations of value between this one commodity and all others, would, on Mr. Ricardo's own principle, be instantly altered."

"If corn, for example, always required precisely the same quantity of labor to produce it; but all other commodities whatever came to be

produced by half the labor formerly expended on them, the value of corn could in no sense be said to remain the same. In proof of this, take Mr. Ricardo's own definition of value, 'the power of purchasing other goods, which the possession of an object conveys.' To say that a commodity is of unvarying value, is, according to this definition, equivalent to saying that its power of purchasing other goods remains constantly uniform; or, to vary the language, that the quantity of other goods for which it will exchange never alters. But in the example we have adduced, the same quantity of corn would exchange for an increased quantity of any other commodity, and consequently, by Mr. Ricardo's own definition, would have risen in value.

"It may possibly be alleged, that it is not the corn, but other commodities which have varied in value, and, therefore, Mr. Ricardo's language is correct. If value were a positive and intrinsic quality, this might be true; but since it denotes a mere relation between two objects, to suppose any alteration could take place in this relation as to one and not as to the other, to suppose that the value of A to B could be altered, and not the value of B to A would, as I have already remarked, be as absurd as supposing that the distance of the sun from the earth could be increased or decreased, while the distance of the earth from the sun remained as before." * * *

"The contradiction involved in affirming the stationary or invariable value of any object, amid the variations of other things, is so direct and palpable that it may be instructive to point out the way in which a writer of such powers of reasoning, as Mr. Ricardo unquestionably possessed, has been led into so strange and manifest an error.

"Since value denotes a relation between two objects, no arguments are required to prove that it cannot arise from causes affecting only one of the objects, but must proceed from two causes, or two sets of causes, respectively operating on the objects between which the relation exists. If A is equal in value to B, this must be owing, not only to causes operating on A, but also to causes operating on B. The fact of a pound of gold exchanging for fifteen times the quantity of corn that can be obtained for a pound of silver, cannot be referred to causes operating on the corn, but to a difference in the causes operating on gold and silver. Hence, how constant or uniform soever, a cause affecting one commodity may be, it cannot make that object of constant value without the concurrence of other invariable causes, acting upon the commodity with which it is compared.

"It is precisely this essential circumstance which has escaped the notice of Mr. Ricardo. When he asserts that a commodity would be of invariable value, if it were always produced by the same quantity of labor; he overlooks one-half of the causes concerned in the determination of Value; for, a moment's consideration will teach us that such a commodity could be of invariable value, in relation to those commodities alone, of which the producing labor had also remained a constant quantity. Not adverting to this, Mr. Ricardo appears to have reasoned, that because the quantity of labor (according to his doctrine) is the cause of Value; if the cause in

any one commodity remains the same, the effect must necessarily be the same. But, granting his doctrine, that the quantity of labor determines value—it must be the quantity requisite for the production of each commodity compared, and not the quantity requisite for that of only one. The value of both, or their relation to each other, must necessarily vary with every change in the quantity of producing labor required for either.

"To assert, indeed, that the value of an object, or its relation to an object, was invariable; because whatever alteration has taken place in the latter object, the former had undergone no change in the conditions of its production, would be as absurd as to assert the unvarying likeness of a portrait to the original; because, however, the man had altered in feature, the portrait itself had retained precisely the same lineaments. The relation of value as well as the resemblance between two objects, depends upon both, and changes with a change in either of them."

Mr. Bailey then points out, p. 21—that the same error pervades Malthus's account of Value, and says, p. 23—"We have here *invariable, absolute, natural, nominal, and relative* Value; but, throughout the whole of the passage, the notion of Value as something intrinsic, or absolute, is apparent. Departing at once from his own definitions, he maintains that the value of an object may be affected—without affecting the value of the commodities for which it is exchanged; that is, that the power of A, in commanding B in exchange, may be altered, while the power of B commanding A, remains as before. Mr. Malthus has fallen into the same error, which we have already noticed in Mr. Ricardo; the error of supposing that, if a commodity continued the same in the circumstances of its production, it would retain the same value, amidst the fluctuations of other commodities. The inconsistency of this with the definition of value, has already been sufficiently exposed, and, as it is the basis of Mr. Malthus's notion of absolute value, that notion necessarily falls to the ground. *The very term ABSOLUTE VALUE, implies the same absurdity as ABSOLUTE DISTANCE*; while the invariable value of one object amidst the fluctuation of all other things, is as self-contradictory a notion as the invariable resemblance of a picture to the natural scenery from which it was taken, amidst all the vicissitudes of the seasons, the touches of time, and the encroachments of art.

"The same error runs through the whole of Mr. Malthus's pamphlet, entitled 'The Measure of Value Stated and Illustrated,' and is involved in the position which it is the object of that pamphlet to establish. He maintains, after Adam Smith, that labor is always of the same value, that is, according to his own definition, always retains the same power of commanding other objects in exchange; and yet, in the same treatise, he speaks of the laborer earning a greater or smaller quantity of money, or necessities, and insists that it is not the value of the labor which varies, but the value of the money, or the necessities. As if produce or money could change in value relatively to produce or money. But we need not be surprised at any implied inconsistencies in Mr. Malthus, when, after setting out with the definition which we have already quoted, that value is

'the power of commanding other objects in exchange,' or in other words, 'the power of purchasing,' he subsequently makes the direct assertion that, 'although money may increase in its power of purchasing, it does not necessarily increase in value.' If Mr. Malthus thus abandons his own definition, what other will he put in its place?"

He also exposes, with equal success, the self contradictions of Ricardo. "Although he, (Ricardo), agrees with Dr. Smith, in defining value to express the power of purchasing; and although in the very first proposition in his book, he speaks of the value of a commodity as synonymous with the quantity of any other commodity for which it will exchange, yet in another chapter of his work he says, 'I cannot agree with M. Say in estimating the value of a commodity by the abundance of other commodities for which it will exchange.' In accordance with the definition, this means that he cannot agree with M. Say in estimating the power of a commodity to purchase other commodities by the quantity of the latter, which it will purchase. But if the power of a commodity to purchase be not measured by the quantity purchased, what other mode of estimation can be found? It is no great degree of boldness to challenge the whole body of economists to produce a different meaning of the word power, or a different measure of its degrees."

He then brings forward a similar error in one of Mr. Ricardo's followers, the author of the *Templars' Dialogues on Political Economy*, (Dr. QUINCEY); and he thus shews the fundamental error of them both. "The mistake, both in this writer and in Mr. Ricardo, evidently arises from an inaccurate apprehension of the true nature of value. Instead of regarding value as a relation between two objects, they seem to consider it as a *positive result, produced by a definite quantity of labor*. If the quantity of labor necessary for the production of an object is always the same, the value according to them is always the same, however other objects may have varied; so that, in fact, the circumstance of its being produced by a certain quantity of labor, constitutes its value, independently of any other circumstances."

He thus brings together the manifest truth on the subject. "The following propositions may be stated, as the results of the investigation in which we have been employed. Simple as they appear, we have seen that it is possible to overlook them:—

"1. Inasmuch as the term value denotes a relation between two objects, a commodity cannot be said to possess value, or to alter in value, without an express or implied reference to some other commodity. Its value must be value in something, or in relation to something.

"2. This relation between two objects cannot alter as to one, without altering as to the other. If A rises in relation to B, B cannot remain stationary, but must fall in relation to A.

"3. The value of a commodity can be expressed only by a quantity of some other commodity.

"4. A rise in the value of a commodity A, means that an equal quantity of this commodity exchanges for a greater quantity than before of the commodity B, in relation to which it is said to rise.

"5. A fall in the value of A means, that an equal quantity of it exchanges for a smaller quantity of B."

"In the examination of the present subject as discussed by those writers, on whose doctrines I have ventured to animadvert, I have been forcibly struck with the vagueness, the inconsistencies, and the errors, which have arisen from speaking of value as a *sort of general and independent property*, and I cannot too strongly recommend the student of Political Economy, never to let the word value pass before him, without putting the question, 'value in what?' or, 'in relation to what?' The value of a commodity must be its value in something, and whenever the term is used with any definite meaning, that something may be assigned. If it cannot be assigned, the reader may rest assured that the author, whoever he be, is writing without any determinate ideas. Whoever resolutely applies this rule in reading our economical writers will be surprised and pleased at the light it will pour over their pages. The most difficult and obscure passages will frequently brighten into perspicuity, and the sum of their truth, as well as of their error, will stand apparent. The brilliant paradox, the ingenious fallacy, the seemingly profound observation, will separate into two distinct parts, one exhibiting the gaudy fragments of sophistry and delusion, the other the simple truth, which they only served to hide with their cumbrous splendour."

In the second chapter Mr. Bailey shews the entirely arbitrary and unfounded distinction between real and nominal value, adopted by Adam Smith, Malthus, Ricardo, and De Quincey.

The third chapter is a refutation of Ricardo's views of the value of labor, and the fourth chapter of the same writer's doctrine of profits, which shews the error of Ricardo's views to a certain extent, but he has not succeeded in seizing Ricardo's master fallacy, which is in not seeing that the *rate of profit* must be reduced to the same standard as the *rate of interest*. (PROFIT.)

The fifth chapter is on the method of comparing commodities at different periods, in which he well shews that the value of the same commodities at different periods cannot be compared, p. 71:—"It is a direct inference from the explanation of value, in the preceding chapters, as denoting a relation between two commodities—a relation incapable of existing when there is only one commodity, that it cannot exist between a commodity at one period, and the same commodity at another period. We cannot ascertain the relation of cloth at one time to cloth at another, as we can ascertain the relation of cloth to corn in the present day. All that we can do is, to compare the relation in which cloth stood at each period to some other commodity. When we say that an article in a former age was of a certain value, we mean that it exchanged for a certain quantity of some other commodity. But this is an inapplicable expression in speaking of only one commodity at two different periods. We cannot say that a pair of stockings in James the First's reign would exchange for six pair in our own day; and we, therefore, cannot say that a pair in James the First's reign was equal in value to six pair now, without reference to some other article.

"Value is a relation between *contemporary*

commodities, because such only admit of being exchanged for each other; and, if we compare the value of a commodity at one time with its value at another, it is only a comparison of the relation in which it stood at these different times to some other commodity. It is not a comparison of some intrinsic, independent quality at one period, with the same quality at another period; but a comparison of ratios, or a comparison of the relative quantities in which commodities exchanged for each other at two different epochs. If a commodity A, in the year 100, was worth 2 B, and in 1800 was worth 4 B, we should say that A had doubled its value to B. But this, which is the only kind of comparison we can institute, would not give us any relation between A in 100 and A in 1800; it would be simply a comparison of the relation between A and B in each of those years.

"It is impossible for a direct relation of value to exist between A in 100, and A in 1800, just as it is impossible for the relation of distance to exist between the sun at the former period, and the sun at the latter. This, perhaps, will be still more apparent, if we make use of the definition of value instead of the term. It will at once be seen how absurd it would be to talk of the power of A in the year 100, to command in exchange, the same commodity in 1800. * * *

"When Mr. Ricardo tells us that a commodity always produced by the same labor is of invariable value, he implicitly maintains all I have been attempting to disprove. By the epithet invariable, he clearly means that its value at one time will be precisely the same as its value at another, not in relation to other commodities, for he supposes all other commodities to vary, but in relation to itself. He distinctly states that, if equal quantities of gold could always be obtained by equal quantities of labor, the value of gold 'would be invariable, and it would be eminently well calculated to measure the varying value of *all other things*,' whence it follows, that this invariableness must be intended to be affirmed of the value of gold compared with itself, and not of any relation between gold and some other commodity.

"The same remarks apply to all attempts to find out something of invariable value. Adam Smith and Mr. Malthus, in considering labor alone as never varying in its own value, assert, by implication, that labor at one period may be compared in value with labor at another period, without reference to any other thing whatever. I fully concede that such a notion involves an absurdity, that they might have talked with equal propriety of the possibility of comparing the distance of the sun in the year 100, with its distance in 1800, without reference to any other body in space; and that language can scarcely be found to express the idea in direct terms, without a palpable contradiction; but that such a notion has extensively prevailed, no one will doubt who attentively turns over the pages of the first writers on the subject." And he further criticizes Ricardo's and Mr. De Quincey's views on this subject.

In the sixth chapter he points out the great errors prevailing in respect of the term measure of value. He explains well the fallacy of the analogy which was so commonly supposed to exist between a measure of weight or length,

and a measure of value. This is a most valuable chapter, and by the doctrines established in it, he tests the measure of value proposed by Mr. Malthus in the following one, and well shews its fallacy. The eighth chapter shews the fallacy of Ricardo's mode of estimating value. The ninth chapter is on the distinction between value and riches. The tenth on the difference between a measure and a cause of value. The eleventh and last is on the causes of value. In this he sees that the cause of value does not reside in the labor of producing, but in the mind. He says, p. 180, "It was explained in the first chapter, that value, although spoken of as a quality adhering to external objects, or as relation between them, implies a feeling or state of mind, which manifests itself in the determination of the will. This feeling or state of the mind may be the result of a variety of considerations, connected with exchangeable commodities, and an inquiry into the causes of value is, in reality, an inquiry into these external circumstances, which operate so steadily upon the minds of men in the interchange of the necessities, comforts, and conveniences of life, as to be subjects of inference and calculation."

Thus Mr. Bailey accurately sees that the source or foundation of value resides in the *mind*, and not in *labor*, as the second school of Political Economy held.

But he has gone one step too far in the consideration of causes, p. 199. "It has been shewn that the immediate causes of value are the considerations, which act on the minds of human beings, *and that the circumstances which form or furnish those considerations must be the causes into which the economist has to inquire*. We have shewn (PRELIMINARY DISCUSSION), that the causes which act upon the mind are beyond the pale of Political Economy. Having got his motive power, the Political Economist, quâ Economist, has no business to inquire any further, any more than the engineer cares to inquire into the chemical causes of the power of steam, or the astronomer to inquire into the metaphysical causes of gravity. Each of these inquiries belongs to a superior science, and it is absolutely essential that a due gradation of sciences be observed. The question of the causes of the considerations which act upon the mind belongs to the science of Morals, and not to Political Economy, and must be kept essentially distinct.

Mr. Bailey then shews the fallacy of the Axioms obtained by Ricardo and his followers, p. 207—"It is manifest that, if the unqualified doctrine as laid down by some writers, were correct, the value of any commodity would be strictly representative of the quantity of labor expended on its production from first to last. 'If,' as Mr. Mill expresses it, 'quantity of labor in the last resort, determines the proportion in which commodities exchange for one another,' or, as it is stated by the author of the *Templars' Dialogues*, 'commodities are to each other in value as the quantities of labor employed in their production;' or, as it is laid down by Mr. McCulloch, 'the exchangeable value, or relative worth of commodities as compared with each other, depends exclusively on the quantities of labor necessarily required to produce them;' then it

follows that any two commodities which, at any time, exchange for each other, (putting aside all fluctuations of market value,) must have been produced by exactly the same quantity of labor. If a quarter of wheat is exchanged for a piece of linen, these two commodities must have required the same labor to bring them to the condition in which they are exchanged.

"Now, this cannot be true, if we can find any instances of the following nature:—

"1. Cases in which two commodities have been produced by an equal quantity of labor, and yet sell for different quantities of money.

"2. Cases in which two commodities once equal in value, have become unequal in value, without any change in the quantity of labor respectively employed in each."

"Cases of the first kind are exceedingly numerous." And he enumerates a number of cases under each head, which shew that the general rule proposed by these writers, is quite fallacious. And he notices the most extraordinary doctrine maintained by Mr. James Mill, and subsequently adopted by Mr. McCulloch,—“The author of the Elements of Political Economy, has made a curious attempt to resolve the effects of time into expenditure of labor. ‘If,’ says he, ‘the wine which is put into the cellar is increased in value one-tenth by being kept a year, one-tenth more of labor may be correctly considered as having been expended upon it.’”

"Now, if any one proposition can be affirmed without dispute, it is this, that a fact can be correctly considered as having taken place, only when it really has taken place. In the instance adduced, no human being, by the terms of the supposition, has approached the wine, or spent upon it a moment or a single motion of his muscles. As, therefore, no labor has been really exercised in any way relating to the wine, a tenth more of labor cannot be correctly considered as having been expended upon it, unless that can be truly regarded as having occurred, which never happened."

This strange hypothesis is an example of the shifts men are driven to, when they take up one preconceived idea, and are determined to square everything by it. A very apt example of Bacon's Aphorism already quoted.

In a note at page 239, he points out that Ricardo has used the word Value in seven senses, and yet he is usually praised for his consistency in the use of that fundamental term!

This little work well deserves the most attentive study, but like all others of its character, which is merely destructive, or an exposure of fundamental fallacies, it is in danger of passing into oblivion, however successful it may be in its purpose. A work to have vitality must be constructive. It is this which has given vitality to Ricardo's work, because, however erroneous it may be, it is constructive, and there can be no hope of superseding it until a constructive work be written, on opposite principles.

This work having been attacked in very coarse terms in an article in the *Westminster Review*, Mr. Bailey replied in,

A letter to a Political Economist, occasioned by an article in the "Westminster Review," on the subject of Value. London, 1826.

Money and its vicissitudes in Value, as they

affect National Industry, and pecuniary contracts. London, 1837.

A Defence of Joint Stock Banks, and Country Issues. London, 1840.

BAILLEUL JAKUES CHARLES,—Born at Bretteville, near Havre, in 1762. He was a member of the Convention, of the Council of Five Hundred, and of the Chamber of Deputies under the restoration, and under Louis Philippe. He was also one of the founders of the *Journal du Commerce*, along with his brother Anthony, in 1794. He died 16th March, 1843.

L'année du negociant et du manufacturier, ou Recueil, par ordre de matières, de traités, lois, arrêtés et réglemens, concernant le commerce, les manufactures, les colonies, et la marine, depuis le 18 Brumaire an VIII. Paris, 1803.

Sur les finances, et sur les factions, considérées comme cause du discrédit actuel, et de la misère du peuple. Paris, 1799.

De la richesse et de l'impôt. Paris, 1816.

Situation de la France considérée sous les rapports politiques, religieux, administratifs, financiers, commerciaux. Paris, 1819.

Du monopole et de la culture du tabac. Paris, 1818.

Principes sur lesquels doivent reposer les établissemens de prévoyance, tels que caisses d'épargne, tontines, assurances sur la vie, &c. Paris, 1821.

Réfutation du rapport du M. le Baron Fourier, sur les tontines. Paris, 1821.

Traité du commerce des fonds publics, à propos de l'affaire de M. M. Perdonnet et Forbin-Janson. Paris, 1823.

Du remboursement et de la réduction de l'intérêt des rentes sur l'état, en France. Paris, 1825.

Lettre contre toute espèce de remboursement de la rente, autre que la rachat par la caisse d'amortissement, adressée. Paris, 1830.

Lettre sur les vices de l'amortissement, avant et après la loi de 1825, avec l'indication des principes qui doivent en régler la marche et l'emploi, adressée, &c. Paris, 1830.

Deuxième lettre sur les vices de l'amortissement. Paris, 1830.

Petites lettres sur de grandes questions;

Lettre No. 3, contre les différens taux attribués au capital nominal des rentes sur l'état. Paris, 1830.

Lettre No. 4; Nécessité d'éclairer les classes ouvrières sur leurs véritables intérêts, par la connaissance de leur position sociale. Paris, 1830.

Lettre No. 5; Des contributions indirectes, de l'impôt sur les boissons; en général des vices qui se sont introduits dans les discussions de finances. Paris, 1830.

Lettre 7; Projet d'une Banque de garantie pour l'escompte des effets de commerce;—Encore un mot sur l'amortissement des rentes sur l'état, et sur le projet adopté par la chambre des députés. Paris, 1830.

Rentes dites cinq pour cent sur l'état, remboursement, conversions, retranchement. Paris, 1836. G.

BAILLY, ANTOINE,—Born at Paris, 20th November, 1780. Inspector General of the Finances. Died in 1851.

Histoire financière de la France, depuis l'origine de la monarchie, jusqu'à la fin de 1789, avec

un tableau général des anciennes impositions, et un état des recettes, et des dépenses du trésor royal, à la même époque. Paris, 1820.

Exposé de l'administration générale des finances du Royaume-Uni de la Grande Bretagne et d'Irlande, contenant des documents sur l'échiquier, la dette nationale, les banques, les navigations, les consommations, &c.; sur le produit et l'emploi des contributions, droits, taxes, péages et émoluments perçus par l'état, le clergé, la magistrature, les comtés, les paroisses, les corporations, les titulaires d'offices. Paris, 1837.

These two works are the best on their respective subjects. The author was sent on a special mission, and resided for a long time in Great Britain, to study the details of the financial system, and had official documents put at his disposal.

BAILLY, JOSEPH,—Born at Besançon in 1779. He studied medicine, and accompanied the French Expedition to St. Domingo, as health officer. He also was present at the campaigns in Germany and Russia; and in 1823 was chief of the medical staff in the Expedition to Spain. He died 15th December, 1832.

Essai sur l'agriculture dans ses rapports avec les arts industriels.

Recherches sur les moyens employés successivement en France pour extirper la mendicité, et réprimer le vagabondage.

BAILY, FRANCIS,—Born in Berkshire in 1774. He was for many years a member of the Stock Exchange, and, in some differences they had with the Corporation of London, he wrote some pamphlets on their side, which gained him much popularity. He also published some works on assurances, which were held in high esteem in this country and abroad. In 1820 he was one of the founders of the Astronomical Society, and for some time President. The reform of the *Nautical Almanack* was brought about, greatly by his influence. He retired from business in 1825, with a large fortune, and thenceforth devoted himself entirely to astronomical pursuits, in which he acquired a high reputation. He was employed by Government to fix the standard yard measure, which had been lost in the fire at the Houses of Parliament in 1834. He was also engaged in many other scientific investigations. He died 30th August, 1844. He was a Fellow of the Royal Society, and a Corresponding Member of the Institute of France.

Tables for the Purchasing and Renewing of Leases, &c. London, 1802.

The Doctrine of Interest and Annuities. London, 1808.

The Doctrine of Life Annuities and Insurances. London, 1810.

This work has been translated into French.

Théorie des annuités viagères, et des assurances sur la vie, suivie d'une collection de tables relatives à ces matières. Traduit par Alfred de Courcy. Paris, 1836.

BAINES, EDWARD,—Joint proprietor and editor, with his brother, of the *Leeds Mercury*.

An Address to the Unemployed Workmen of Yorkshire and Lancashire, on the present distress, and on Machinery. London, 1826.

History of the Cotton Manufacture in Great Britain, with a notice of its early history in the East; a Description of the great Mechanical Inventions which have caused its extension in Britain, and a View of the Present State of the Manufacture. London, 1835.

The Social, Educational, and Religious State of the Manufacturing Districts; with Statistical Returns of the Means of Education and Religious Instruction in the Manufacturing Districts of Yorkshire, Lancashire, and Cheshire. London, 1843.

The Manufacturing Districts Vindicated. Leeds, 1843.

On the Value of Education to the Working Classes. The Duty and Interest of Parents. Leeds, 1852.

On the Value of Education to the Working Classes. London, 1852.

BAJOT, LOUIS MARIN,—Born at Paris, 9th September, 1775, has held various offices in the department of the Marine.

Revue de la marine Française depuis son origine jusqu'à nos jours. Paris, 1800.

Répertoire de l'administrateur de marine, ou tables alphabétiques par ordre de dates et de matières des principales lois relatives à la marine et aux colonies, depuis leur origine jusqu'à ce jour. Paris, 1814. G.

BALANCE OF TRADE.—This expression is a pregnant example of Bacon's aphorism that the fallacies of language are the most troublesome of all, and of the extreme difficulty of eradicating those which have some portion of truth in them. It is also a conclusive reply to those persons who think that attention to the meaning of words is of no consequence in Political Economy. It is a most humiliating instance of the way in which the most eminent Statesmen and the most enlightened nations may be duped and misled for a long course of time by an expression, which, when it comes to be analysed and probed by men who begin to investigate the true nature of things, is discovered to be the most palpable delusion that ever deceived the senses of mankind.

2. This amazing fallacy may now be considered to be exploded among all men who have the slightest pretensions to any real knowledge of the matter, though it does still linger in a few quarters. Its overthrow gave rise to what we call the first school of Political Economy of modern times, founded by Quesnay, and the economists of the eighteenth century. It may claim some attention at our hands because its explanation will well illustrate some of the fundamental principles of Political Economy.

3. As this error, however extensively it prevailed, or however important it was in its day, is now exploded, we shall not spend much time in deciding where it arose. It is sufficient to say that England, France, and Italy, all contend for the honor of the cap and bells. A considerable number of writers in each country contributed to establish it, nor do we care to settle the priority of folly. Though Spain may, probably, be really entitled to it. In the conquest of the new world, gold was their chief object of ambition. The new acquisitions were estimated chiefly as they were capable of producing the precious metals. From

this the idea gradually extended and prevailed, that the precious metals were the only species of wealth; and, by a confusion of ideas, it was supposed that the object of all trade was to acquire the precious metals. It followed from this that the profits of trade were estimated just as they brought in gold and silver. It is said that an Italian writer, Botero, in the sixteenth century, was one of the earliest to adopt this doctrine. Montaigne stands one of the first in this bad company, for he lays it down that, in trading, whatever one party *gains*, the other party must *lose*. A doctrine absurd on the face of it, because, if one party lost, why should he continue to trade? It is clear on the slightest reflection that, in commerce, *both* sides must gain, for if not, it would immediately cease.

4. Having thus adopted the opinion that gold and silver were the only species of wealth, that, in commerce, what one side gained the other lost; they then began to estimate how much the gain or the loss was, and they did it in this way:—They said that, if the exports of a country exceeded the imports in *value*, that the *balance* must be received in money, and that, if the imports exceeded the exports, the balance must be paid in money. The difference in value between the exports and the imports was called the *Balance of Trade*, which, it was assumed, must be paid in money, and the trade of a country was considered favorable or adverse, according as the balance was for or against it. That is to say, the profit was held to consist in the quantity by which the value of the exports exceeded the value of the imports, and the loss was held to consist in the quantity by which the value of the imports exceeded the value of the exports.

5. In order to place the matter still more clearly before our readers, we will give a statement of it from some eminent witnesses. Mr. Irving, Inspector-General of Imports and Exports, being examined before the Committee of Secrecy in 1797, was asked what the meaning of the expression was, and he said, "The common mode of considering that question has been to set off the value of the imports, as stated in the public accounts, against the value of the exports, and the difference between the one and the other has been considered as the measure of the increase or decrease of the national profit." And, Mr. Hoare, a banker of eminence for twenty-two years, said, "I consider the only proper means of bringing gold and silver into this country to arise from the surplus of our exports over our imports, and that ratio or proportion, which is not imported in goods, must be paid for in bullion. In the year 1796, the imports of this country appear to be £19,788,923, and the exports appear to be £33,454,583, which ought to have brought to this country bullion, to the amount of that difference, or £10,665,660." So also, Necker (*De l'administration des finances de la France. Vol. II., p. 108*) says, "Le tableau de la balance du commerce, est la représentation des échanges d'une nation avec les autres nations; cette balance paraît favorable lorsque la somme de ses exportations est plus considérable que celle de ses importations; elle lui annonce une *perte*, lorsqu'au contraire il a plus acheté que vendu."

6. Notwithstanding this concurrence of emi-

nent men on this subject, the very statement of the question as given by them carries on the face of it, the most palpable evidence of its folly to any one who takes the trouble to reflect. In the first place, even supposing the value of the exports is given correctly, it is taken at their cost price before they leave the country, and before any expenses of transport, &c., have been added to it. On the contrary, the value of the imports is taken including the expenses of transport, &c. So that it is quite clear that unless the value of the imports exceeds the value of the exports by sufficient to defray all expenses of transport of both cargoes, the trade must be an absolute loss. Thus, let us suppose that the value of the exports is £1,000, at the time they leave the shores of England, by the time they reach South America say, the expenses of transport, insurance, &c., will probably make their cost of production, or the expense of placing them in the foreign market, £1,050, which sum they must fetch, if they are not to leave an absolute loss on the transaction. Now, if we imagine them sold at that sum, and the proceeds invested in country produce and remitted to England, the value of that produce before it leaves the foreign market would be £1,050, by the time it reaches England the expenses of freight, insurance, &c., may well amount to £50 more, so that unless the value of the import be £1,100, there will be an absolute loss upon the transaction. But it is quite evident that the profit of the merchant entirely consists in the value of the import exceeding the value of the export, and the measure of his profit is exactly the quantity by which the import exceeds the export in value, after deducting the expenses of transport, insurance, &c., both ways.

7. Let us take a very simple example of the rudest description of trading, which will yet be found to illustrate it as well as the most elaborate. When our ships first traded to the South Sea Islands, they took with them axes, coloured beads, and other trifles, which were of very little value in this country, and bartered them for all sorts of curiosities, shells, &c., which were very valuable in England. A pair of fine shells from the South Seas, in many cases, is worth ten guineas in England, which perhaps an English sailor obtained in exchange for an axe which cost 2s. 6d. The English sailors thought the natives very simple to give away so many valuable curiosities for such common things. We cannot doubt that the natives had exactly the same opinion of the English sailors; they thought them great simpletons to give away such valuable things as axes, beads, &c., for so common things as a few shells. Each party, however, exchanged what was common and cheap in his own country, for what was scarce and valuable. The axes were infinitely more valuable in Feejee than the shells, the shells were many times more valuable in London than the axes. Thus, an English sailor, by giving away perhaps 2s. 6d., gained in exchange what was worth ten guineas, and the difference was his profit. And thus both parties gained by the commerce. The shells were worth many axes in London, the axes were worth many shells in Feejee; and this is the genuine spirit of commerce. This simple transaction is a type of all commerce. The value of the shells in London arises from the desire of the people in London to

possess them, and their scarcity; the value of the axe in Feejee arises from the great desire of the Feejeans to possess it, and the scarcity of axes there. The coloured beads were just as valuable to the poor untutored savages, as diamonds to civilized Europeans. The commerce of all nations is exactly similar in principle to that between the sailors and the savages. It all consists in exchanging things which are comparatively cheap and common in two countries for what are dear and scarce in them reciprocally, and of course both parties must gain by the very nature of the case. But, according to the old doctrine of the Balance of Trade, England having given an axe worth 2s. 6d., and received a pair of shells worth ten guineas, still owed the balance which required to be paid in gold!

8. When we state the doctrine thus, in all its naked absurdity, it is scarcely credible that it could impose on the intellect of a child, much less upon a clerk who had been six months in a merchant's office. But, nevertheless, such is the unaccountable facility with which mankind is sometimes gulled and befooled by the most transparent sophism; nay, the plainer it is sometimes, the more easily does it deceive, that for 200 years and more the greatest statesmen were implicit believers in this doctrine of the Balance of Trade; and it was conceived to be the height of commercial and political wisdom to frame legislation so as to secure a favorable Balance of Trade. Nay, J. B. Say says, "that during 200 years, during which statesmen were blinded with this strong delusion, no less than fifty years were spent in commercial wars, arising directly out of this stupendous folly. Fifty years of war with its unutterable horrors waged for a chimera—a fiction—a thing which had absolutely no existence at all! Do we not say truly, when we say that true and sound views of Political Economy are of the utmost importance to mankind? True Political Economy has turned the light of science on a single expression, and the result has been to destroy for ever a fallacy which let loose upon the earth the demon of war for fifty years!

9. And this was the immortal service, which QUENET and his followers, the Economists of the 18th century, did to mankind. They entirely overthrew this insensate Doctrine of the Balance of Trade, and thereby laid the foundations of modern Political Economy. No doubt they, too, fell into errors, and their leading doctrines have passed away. But their supereminent merit, of which nothing can deprive them, was that they overthrew the doctrine of the Balance of Trade, for which they deserve the eternal gratitude of mankind, as having been the pioneers of the true system.

10. And we observe that this great delusion turns a good deal upon the confusion of ideas about a word, because it was supposed that if the value of the imports exceeded the exports, the difference must be paid in money, whereas so long as the imports were the actual exchange, or payment for the exports, it is quite clear that there was no debt at all, and consequently nothing to pay. But it sometimes happens that goods, or commodities, are imported, which are not paid for in commodities, and then money must be paid for these goods; or if a certain species of article is very much wanted in this country, and there are

no commodities at hand to pay for them, it sometimes happens that bullion requires to be sent; and when this is the case the EXCHANGES are said to be unfavourable. These circumstances, and some others, give rise to the Theory of the Foreign Exchanges, which is fully discussed in its proper place (EXCHANGES, FOREIGN).

11. The doctrine of the Balance of Trade being so thoroughly exploded now, may be considered as having lost much of its interest; but those who wish to see it treated more at length, may refer to Adam Smith, Book IV., chaps. 1-8, J. B. Say.—*Traité d'Economie Politique*, Book I. c. 17, p. 139-173, or his *Cours d'Economie Politique*, Part IV., chaps. 11, 12, 13. Edition, Guillaumin. Also to the *Sophismes Economiques* of Bastiat, p. 76.

BALBI, ADRIANO,—Born at Venice, 25th April, 1782. A celebrated Geographer, Professor of Physics and Geography there. In 1820 he married and went to Portugal, where he became acquainted with the principal statesmen, and men of science, and he was furnished by the government with materials for his work on Portuguese statistics. He then went to Paris, and published in French a large geographical work, embodying the results of German research in ethnology and philology. He received the assistance of most of the eminent men of Europe, especially A. von Humboldt, and was assisted by the French government. He died 13th March, 1848.

Essai statistique sur le royaume du Portugal et d'Algarve, comparé aux autres états de l'Europe. Paris, 1822.

Variétés politiques et statistiques de la monarchie Portugaise. Paris, 1822.

La monarchie Française comparée aux principaux états de l'Europe. Paris, 1828.

L'Empire Russe comparé aux principaux états du monde. Paris, 1829.

The World compared with the British Empire 1830.

Statistique comparé de l'instruction et du nombre des crimes dans les divers arrondissements, des académies, et des cours royales de France. Paris, 1829.

BALD, ROBERT,—Civil Engineer.

A general View of the Coal Trade of Scotland, chiefly that of the River Forth and Midlothian. Edinburgh, 1812.

BALDASSERONI ASCANTIO.—A judge in the Revenue Court of Leghorn.

Trattato dell'Assicurazione Marittima, del cambio marittimo, dell'Avaria, e leggi, e costumi. Firenze, 1801.

BALDASSERONI, POMPEO,—Brother of the preceding, born at Leghorn about the middle of the 18th century. He studied law at Pisa, and having filled some inferior positions at Sienna and Genoa, he was appointed a member of the High Court of Modena, and then one of the Court of Appeal at Brescia, where he died in 1807.

Leggi e costumi del cambio, ossia trattato delle lettere del cambio. Modena, 1805.

BALLERINI, PIETRO,—Born at Verona, 7 September, 1698; a celebrated ecclesiastical

writer of the 18th century. Having engaged in a warm controversy about *usury* with Scipio Maffei, he published several works on the subject. He died about 1764.

De jure divino et naturali circa usuram libri sex.

Vindiciæ juris divini ac naturalis.

BALLOIS, LEWIS JOSEPH PHILIP,—Born at Périgueux (Dordogne) in 1778. He published at Bordeaux an excellent newspaper, *l'Observateur de la Dordogne*. In 1798 his countryman, Lamarque, being appointed ambassador to Sweden, chose him his secretary, but the appointment being refused confirmation by the Directory, Ballois was so much chagrined that he tried to commit suicide, but did not succeed. At the 18th Brumaire his paper was suppressed, and he then devoted himself to Political Economy. He was elected a member of the Academy of Bordeaux, and associate correspondent of the Polytechnic Society, a member of the Academy of Legislation, and perpetual secretary of the Statistical Society founded at Paris 5th February, 1803. He died the same year from the consequences of his wound.

Annales de Statistique Française et étrangère. Paris, 1802.

Sur l'Agriculture, les finances, les statistiques, de longéité; suivie d'un aperçu sur les sources du revenu public. Translated from a work of Sir John Sinclair. Paris, 1802.

BALSAMO, PAOLO, L'ABBATE.—Born at Termini, in Sicily, 7th March, 1763. An Italian agriculturist and economist, whose works are still held in high repute. He was appointed Professor of Agriculture in the University of Palermo, and enjoyed the profits of a rich Abbacy. He was sent by the government of Naples to Lombardy, France, and England, where he formed an intimacy with Arthur Young, the author of *Annals of Agriculture*. He proposed many financial reforms, which were adopted by the king, who appointed him his librarian. These reforms had for their object, a more equal distribution of taxation, which weighed heavily and unjustly upon agriculture. He died at Palermo in 1818. Among his contributions to agricultural economy are:—

Il costante vile prezzo di generi non denota e non cagiona ricchezza ed prosperità nello stato.

Lo spendersi del denaro in un paese quali utili effetti produca nel paese medesimo.

Gli interessi nazionali e la giustizia richiedono che non si avvilisca il valore della moneta.

Diligence e pratiche perchè li vini regger possono alla navigazione ed alla lunga conservazione.

Sopra la birra, il sidro, e l'idromele.

Pensieri sopra l'agricoltura di Sicilia.

Sopra l'influenza delle scienze nel miglioramento delle arti.

Sopra il piacere dell'agricoltura, memoria di A. Young; tradotta dall'Inglese.

Sopra i dazi relativamente all'agricoltura, ed alla ricchezza nazionale.

La sentenza del villano.—Il villano filosofo.

BANDINEL, JAMES.

Some account of the Trade in Slaves from Africa, as connected with Europe, and America,

from the introduction of the Trade into modern Europe down to the present time; especially with reference to the efforts made by the British Government for its extinction. London, 1842.

BANDINI, SALUSTIO ANTONIO.—Born at Sienna, 10th April, 1677. An Italian economist, who was designed by his family for a military career, but had such a taste for science, that he applied himself to study the causes which produced the unhealthiness of the marshes of Sienna, and he published a work of great utility on this subject, which guided the Emperor Francis I., and his son the Grand Duke Leopold, in their plans of reclaiming the Maremma of Sienna. He became Archdeacon and President of the Physico-critical Academy of Sienna. He was also author of a work which has been supposed by some to have been the foundation of the doctrine of the school of Economists in France. But though it was written in 1737, it was not published till 1775, long after Quesnay had published his doctrine. It is included in Custodi's Collection. Bandini died in 1760.

Discorso Economico. 1737.

BANFIELD, T. C.

The organisation of industry; explained in a course of lectures, delivered in the University of Cambridge. London, 1844.

The Statistical Companion for 1850.

BANK.—Banking is one of the two grand divisions of the mighty subject of Credit, which is to commerce what the steam engine is to mechanics, or the differential calculus to mathematics. The subject is one of immense importance in Political Economy and will demand much attention, because we shall endeavour to show that the current doctrines of the day on Banking and Credit, are as complete a misconception of the subject, as the doctrine of the *Balance of Trade* was in its day, and that both delusions spring from the very same cause, a want of attention to the facts of the case.

2. Before, however, making any comments on the current opinions, or reviewing the doctrines of any writer, we shall lay before our readers an exact description of the actual mechanism of Banking, and we shall draw no inferences except such as arise naturally out of the facts detailed. Having thus laid a solid foundation, by exhibiting the facts of the case, we shall then proceed to examine the current opinions, and test the doctrines of certain writers by that standard.

3. It will tend much to clear up the subject, if we begin by a short inquiry into the meaning of the words "A BANK," and to BANK, and what the functions of the first Banks were. It is usual to derive the word Bank from the Italian word *banco*, a bench, because the first money changers in that country used to pile their money on a bench. It may possibly be that the word "banker" comes from the low latin word *Bancharius*, but if this be so, paradoxical as it may appear, it seems very doubtful if the words A BANK and to BANK have any etymological connection with "banker." At all events, however that may be, the words "a bank," and "to bank," have acquired a meaning altogether different from that of the business of the persons who employed a *banco*, or bench.

4. We may observe that the word in Italian

for a joint-stock, or common fund, is *Monte*, a heap, a *BANK*, formed by the contributions of various persons. Thus, the public loans were always called *Monte*, and it was the commissioners charged with the management of the public loans of Venice, called *Monti*, who were formed into the Bank of Venice. So, in a little tract entitled *A Discourse concerning Banks*, published in 1697, and known to be by a director of the Bank of England, and by some supposed to be by Paterson its projector, it says that there are three kinds of Banks, the first for the mere deposit of money, the second for profit. "The Banks of the second kind, called in Italy *Monte*, which are for the benefit of the income only, are the Banks of Rome, Bologna, and Milan. These banks are made up of a number of persons, who, in time of war, or other exigencies of the State, advanced sums of money upon funds granted in *perpetuum*, but redeemable." "The third kind of Banks, which are both for the convenience of the public, and the advantage of the undertakers, are the several Banks of Naples, the Bank of St. George, at Genoa, and one of the Banks of Bologna. These banks having advanced sums of money at the time of their establishment, did not only agree for a fund of perpetual interest, but were allowed the privilege of keeping cash." And this is precisely the meaning of the word *Bank* in our earliest English writers. Thus, Bacon, says "Let it be no *BANK*, or common stock, but every man be master of his own money," a sentence which is quite unintelligible, if *bank* is derived from *banco*. So also Evelyn (*Diary*, Vol. I., p. 211,) speaks of the "Monte di Pietà, at Padua, where there is a continual *BANK* of money to assist the poor," where it evidently means an accumulation of contributions. And the meaning of Monte di Pietà is simply a charity bank. So also, p. 216, "The great *BANKS* are set up for those who play at basnet," again evidently meaning a heap. So also describing the scandalous scene at Court on the last Sunday evening of Charles II., he says, (*Vol. II.*, p. 210), "A *BANK* of, at least, 2,000 in gold." It is perfectly manifest that in all these places, the word *Bank* is the equivalent of the Italian word *Monte*, and not of *banco*. So also Blackstone confirms this view; he says, (*Vol. I.*, p. 322, *Kerr's Edition*), "At Florence, in 1344, government owed £60,000, and being unable to pay it, formed the principal into an aggregate sum called metaphorically a *Mount* or *Bank*." Thus, we see that there are, at all events, two words from which our word *Bank* may be derived.

5. Let us now inquire what the functions of the first banks were. It is often said that the Bank of Venice dates from 1171. In the sense in which the word is used at the present day, there never was a more complete delusion. The facts were these: In that year the Republic being engaged in a disastrous war, levied a forced loan on its citizens, which was called a *Monte*, and Commissioners were appointed to manage the transfer of stock and the payment of the dividends. Several subsequent loans were contracted. In process of time Venice became the centre of an immense foreign trade, and as a natural consequence, the foreign traders brought a large quantity of coin of all sorts and denominations. These coins, moreover, were greatly clipped, worn, and diminished. This degraded state of the current coin produced

intolerable inconvenience, disorder, and confusion among merchants in paying or receiving payment of their bills. To remedy this it became necessary to have some uniform standard of payment. The plan devised was this: In the year 1587, all the public loans were consolidated into one, and the Commissioners undertook the functions of a Bank of Deposit. Every merchant brought his coins of every different sort to the bank, and they were weighed, and the bank gave him a number of notes exactly corresponding to the real amount of bullion deposited. These notes promised to pay the bearer on demand, a definite quantity of bullion of the proper fineness. Thus they insured a uniform standard of payment, and it was enacted that all bills upon Venice, above a certain amount, should be paid in bank money. Thus this bank merely exchanged notes for bullion, and bullion for notes, and so did not increase the quantity of the currency at all. It was a pure Bank of Deposit. Thus the origin of what we should call the Bank of Venice dates from 1587, and not from 1171. And several writers, such as Law, Voltaire, and Hume, say that the Bank of Sweden dates from an earlier period than this. The money of Sweden was at that time made of copper, and very inconvenient to make payments in, as it required a cart to carry a moderate amount of it. To remedy this a public Bank of Deposit was established, where the merchants deposited their copper money, for which they received bank notes payable to bearer on demand, in which payments were made. Law says that this was the earliest institution of the kind, and that the banks in Italy were subsequent to it. The banks of Amsterdam and Hamburg were for the same general purpose; they received bullion and coin, and gave promissory notes payable to bearer on demand for them. None of these banks did any business on their own account, by way of discounting bills, or making loans. Thus we see that the peculiar function of all these banks, which were pure Banks of Deposit, was to issue promissory notes, payable to bearer on demand, which, however, did not exceed in quantity the bullion they were substituted for.

6. All this time the name of bank and banker was utterly unknown in England. The persons who exchanged money were called money changers, and those who negotiated loans were called *money scrivener*s. During the civil war, however, the goldsmiths in London began to receive deposits from the public, for which they granted receipts which were transferable from party to party, exactly like the notes of the banks we have spoken of, and they began to discount commercial bills by issuing their own promissory notes, payable to bearer on demand; and it was after they began to adopt this practice of issuing promissory notes, and not till then, that they began to be called "bankers," but their places of business were never called *banks*. Thus we see that it was the practice of issuing promissory notes that brought the name of bankers into this country.

7. During the latter half of the 17th century multitudes of projects were started, for the purpose of establishing "Banks," and, on looking at them, we find that they were all for the express purpose of creating promissory notes payable to bearer on demand.

8. Now, we must observe that the goldsmiths who discounted commercial bills by issuing their

own promissory notes, did not confine their issues to the quantity of bullion they held, because they had already given an equivalent amount of deposit receipts for that. But they observed how many of their notes came back upon them for payment, and keeping an amount of bullion sufficient to meet any such expected demand, they could issue as many notes as they pleased. And they derived exactly the same profit from issuing these notes, as if they were gold and silver, and these notes produced exactly the same effects in commerce, as if they were gold and silver. Consequently, in their effects, both to the banker and to the public, just by so much as they exceeded the quantity of the bullion retained to support their credit, and convertibility, they were exactly equivalent to an augmentation of capital—to an equal increase of actual gold and silver. A species of capital, no doubt, of a somewhat dangerous character, and one that was liable to be destroyed, but yet, so long as it did exist, it was equivalent to so much bullion.

9. The first bank actually established in England, was the "Bank of England," which was framed on the model of those banks, which were called *Monti* in Italy. It was a company of subscribers to a public loan, which was the first legal foundation of our National Debt. The sum subscribed by this company was £1,200,000, which was lent to the Government to carry on the war with France, and the company was authorized to create and issue an equal amount of bank notes; they were also authorized to receive deposits from the public, and trade for profit upon their own account.

10. Now, we must specially remark this, that the original capital subscribed by the bank was lent to Government, and was put into circulation, and over and above that, they were allowed to create an equal quantity of bank notes—that is to say, both the coin and the notes were in circulation. Consequently, so far as regards the currency, it is quite clear that the effect of the institution of the Bank of England was to create an addition of £1,200,000 to the previously existing metallic currency. And this result was altogether different from that of the Bank of Venice, where the bullion for which the notes were given was kept in the vaults of the bank, and was not in circulation.

11. Some further augmentations were made to the capital of the bank by fresh loans to Government, and they were on each occasion permitted to create bank notes to an equal amount, and it is quite clear that the notes created on these several occasions were an addition to the previously existing currency. After some time, all restrictions on their amount was removed, and they were allowed to issue as many as they pleased, on the condition that they should be payable to bearer on demand.

12. The next bank erected was the Bank of Scotland, which was the first instance of a mere private Joint Stock Bank. It was an association of private persons, who paid in a certain subscription, and they were allowed to create promissory notes *ad libitum*. They received no deposits from the public for nearly ten years after they were established. We are told by contemporary writers, that, in a short time, their notes in circulation were five times the amount of the subscription

paid in to support their credit, and it is perfectly clear that all excess above the amount of bullion deposited was an addition to the previously existing metallic currency.

13. During this period all the London bankers issued promissory notes payable to bearer on demand, and some to a very large extent. It is stated by contemporary writers, that some had notes to the amount of upwards of a million in circulation.

14. Thus we see that the distinctive function of a bank, and a banker, was to issue notes payable to bearer on demand, which were to circulate as money. *That is, to create paper currency*; in some cases only equal to the amount of bullion they displaced, in others greatly exceeding it. And the meaning of the word to "bank" was to receive deposits of cash, and to give notes payable to bearer on demand, and also to discount bills of exchange with similar notes—in fact, *to create instruments of credit*. Thus, in the very able memoirs upon banking, presented by Law to the Regent Orleans, he says:—"La banque est un crédit général." And that this is the true meaning of the word there is abundant proof.

15. These views are quite borne out by the language of the Statute of 1709, preventing banks of more than six persons being formed. At this period a bank was considered so much an affair of State, that no one thought of a bank not erected by Act of Parliament. And when in 1697 parliament meant to confer a monopoly on the Bank of England, it only said that no other bank should be erected by parliament. But about 1708, some other public companies began to do banking business, by issuing promissory notes, and on the renewal of the charter in 1709, parliament was called upon to interfere to protect the monopoly of the bank of England, and the language of the Act demands our attention. At this time there was no legal definition of the word "bank," and "banking," and, consequently, the Act did not directly enact that no bank with more than six partners should be formed, but it described what was at that time the well understood business of banking, and it prohibited that. The words of the Act are these:—"That during the continuance of the said corporation of the Governor and Company of the Bank of England, it shall not be lawful for any body politic, or corporate whatsoever, erected, or to be erected, (other than the said Governor and Company of the Bank of England), or for any other persons whatsoever united, or to be united in covenants, or partnership, exceeding the number of six persons, in that part of Great Britain called England, to borrow, owe, or take up any sum or sums of money, on their bills, or notes, payable at demand, or at any less time than six months from the borrowing thereof."

16. Thus we see that at this period banking was understood to consist in *borrowing*, or *owing*, or *taking up* money on promissory notes payable to bearer on demand, and to forbid persons to do that was to prevent them from banking. This, then, at that period was the well understood meaning of banking, and for a considerable period this clause was perfectly effectual for its purpose, and it did prevent any other joint stock bank from being formed.

17. But this meaning becomes much more clear in 1742. The act of 1709 did, for some

time, prevent any rival banks from being founded, but about 1740, some persons tried to evade the words of the act, and erect banking institutions. In order to put an effectual stop to this, the language of the act of 1742 is much more full and explicit. It says, "And to prevent any doubt that may arise, concerning the privilege or power given by former Acts of Parliament to the said Governor and Company of **EXCLUSIVE BANKING**; and also in regard to erecting any other bank or banks, by parliament, or restraining other persons from *banking*, during the continuance of the said privilege granted to the Governor and Company of the Bank of England, as before recited; it is hereby further enacted and declared by the authority aforesaid, that it is the true intent and meaning of the Act, that no other bank shall be erected, established, or allowed by parliament, and that it shall not be lawful for any body politic or corporate whatsoever, erected or to be erected, or for any other persons whatsoever, united or to be united, in covenants, or partnership, exceeding the number of six persons, in that part of Great Britain, called England, to *borrow, owe, or take up, any sum or sums of money on their bills, or notes, payable at demand, or at any less time than six months from the borrowing thereof*, during the continuance of such said privilege to the said Governor and Company, who are hereby declared to be and remain a Corporation with the privilege of **EXCLUSIVE BANKING**, as before recited."

18. Hence, we see that the privilege of exclusive banking conferred on the Bank of England, is expressively declared to consist in *borrowing, owing, or taking up money, on bills, or notes, payable on demand*. That is, in creating and issuing currency, and to prohibit persons from creating currency was, in fact, to prohibit them from banking. These words were devised with the utmost care, so as to prevent any other rival in the most comprehensive manner possible. It was supposed that no legal ingenuity could devise an expedient to evade so extensive a prohibition. *The form of words adopted in the Act was devised in reference to the method of doing banking business at the time they were framed*, and they did prevent any other public bank being formed, as long as bankers adhered to that particular method of doing business, that is, as long as they *created currency in the form of promissory notes, payable to bearer on demand*. But, about thirty years later, bankers adopted a change in the method of doing their business so simple, and apparently, so unimportant as to elude notice. And it was this mere change in the *form* of doing their business, that is, of creating liabilities, or currency, in a form not provided for by the words of the Act, that cut away the ground from under the Act, and was the means whereby the present Joint Stock Banks in London were founded, and thus destroyed the monopoly of the Bank of England, because when this mode of evading the Act was discovered, and the Bank applied to parliament to put a stop to it, they were told that such monopolies were out of fashion, and their demand was refused.

19. Before we describe the change that took place in the mode of doing banking business, which was adopted about 1772, it may be as well to exhibit the form which a banker's accounts

would present under the old system. Neglecting any capital of his own the banker might be possessed of, let us suppose him to have £10,000 in cash deposited with him by one set of customers—A, B, C, &c., then his accounts would stand thus:—

Liabilities.

To customers' balances £10,000

Assets.

By cash deposited £10,000

Now, let us suppose that another set of customers, a, b, c, &c., bring him £30,000 of bills of exchange to discount, the way he would have done it, would have been to give his own promissory notes to that amount, deducting the discount. Let us take that at 5 per cent., and the bills at twelve months, for the sake of simplicity. Then his accounts would stand thus—

Liabilities.

To customers' balances £10,000

Notes issued..... 28,500

£38,500

Assets.

By cash deposited £10,000

Bills of Exchange 30,000

£40,000

That is to say, with actual cash to the amount of £10,000, the banker has created liabilities to the amount of £38,500. And, of course, it is perfectly clear that the amount of liabilities he might create, would depend on the actual amount of cash, which experience would show him, would, on an average, be demanded from him. And it is also perfectly clear, that all the notes above that, created and in circulation, would be as profitable to himself, and produce exactly the same effects to the public, as an actual increase of gold and silver.

20. The words of the Act we have quoted, were framed specifically in reference to this particular method of creating currency, or liabilities, and as long as bankers created liabilities in this form only, they effectually prevented any Joint Stock Banks being founded in rivalry to the Bank of England. But about 1772, the London bankers, who all up to that time issued notes to a very large extent, changed their method of doing business. They adopted a different *form* of creating liabilities. Instead of creating liabilities by giving their customers their promissory notes, *they merely wrote down to their credit in their account an equal sum*, and they gave them books containing a number of blank draughts, which the customers might fill up in favour of any one they pleased, and which were also payable to bearer on demand, and which the banker engaged to pay to any one who presented them, provided he had funds of his customers to meet them. And these forms are called **CHEQUES**. Thus, under the old system, a banker used to create liabilities by issuing his own promissory notes payable to bearer on demand; under the new system he creates liabilities by promising to pay a Bill of Exchange, drawn upon him, payable to bearer on demand, to an equal amount.

21. Hence, the modern system of Cheques is

nothing but a substitute for Bank Notes. A bank note is, in fact, a double obligation; one, an obligation to pay the customer, the original creditor, the second, to pay the bearer, *i.e.* any one to whom the original creditor may transfer the obligation. Now, the modern practice separates these obligations, the entry in the banker's books is the obligation to pay the customer, the permission to draw a bill of exchange payable to bearer on demand, called a cheque, is the obligation to pay any one the customer may transfer the debt to. And the entry in the banker's books, together with the cheque, make up the bank note.

22. Hence, we see that although banking originally consisted in issuing notes payable to bearer on demand, yet bankers devised a method of doing the very same thing, under another form, *and we must change the form of expression accordingly, to meet the altered form of doing business.* Nor shall we have the least difficulty in finding an expression which will include both forms. For though the business of banking consisted in discounting bills with their promissory notes, payable to bearer on demand, we may express it thus, *that it consisted in buying debts with PROMISES TO PAY.* And these promises to pay may be of two forms.

I. Promissory notes payable to bearer on demand.

II. Figures written down to the credit of the customers, to be drawn against by cheques, payable to bearer on demand.

The method of doing business by means of cheques, was found to have so many practical advantages over that by way of notes, that from that period London bankers universally discontinued the issue of notes, and adopted cheques; though they never were forbidden to issue notes until the Bank Act of 1844.

23. The modern system of banking, then, by means of cheques, is exactly the same in principle as the former method of bank notes, only it is somewhat varied in form. In each case *banking consists in creating liabilities*, and the modern form of stating these liabilities in banking accounts is a source of an enormous amount of erroneous opinion. In the former mode of stating the accounts, it is open and patent to the world, that the banker has created liabilities against himself by the discount of bills; in the modern form these liabilities are disguised and amalgamated with the actual deposits in cash, so that it is made to appear, and is almost universally believed, that what is classed under deposits in the published banking accounts, are deposits in actual cash, whereas they are nothing but a creation of credit.

24. The reason is this, that in the old form when a banker discounted a bill with his own notes, it was stated that they were his own notes, and a distinction was plainly drawn between liabilities created by the deposit of cash, and the notes issued in the discount of bills. In the modern form, when a banker has created liabilities by discounting a bill by writing down to his customer's credit, what under the old system he would have given him as notes, they are treated and classed as a "balance on drawing accounts," and they are *not* distinguished from the liabilities created by the deposit of cash, and the two being thus presented to the public under one denomination, are almost universally believed to be actual cash, except by

those who are acquainted with the mechanism of banking. In order to present the difference in the clearest manner to the reader, we shall now contrast the two forms of stating the accounts.

OLD FORM OF BANKING ACCOUNTS.

Liabilities.

To customers' balances.....	£10,000
Notes in circulation	28,500
	<u>£38,500</u>

Assets.

By cash deposited	£10,000
By Bills of Exchange	30,000
	<u>£40,000</u>

MODERN FORM OF BANKING ACCOUNTS.

Liabilities.

To customers' balances.....	£38,500
	<u>£38,500</u>

Assets.

By cash deposited	£10,000
By Bills of Exchange	30,000
	<u>£40,000</u>

25. Now, in examining these two forms of accounts, though they are, in reality, only two different methods of doing the same thing, a striking difference is apparent on the face of them. In the first it is manifest on the face of it, that the banker has created £28,500 of notes, or created that amount of liabilities against himself, by buying bills of exchange. In the second form this does not appear at all, but this sum of £28,500 appears as a *deposit*, and to any one who is not conversant with the subject, it seems to be a deposit in actual cash, and many persons are apt to believe that a banker has that amount of cash to trade with. Thus, when the accounts of the great London Joint Stock Banks are published, and it appears that one has £13,000,000, and another has £10,000,000, and so on of deposits, it is almost universally believed that the first has £13,000,000, and the next £10,000,000 of actual money to trade with, or *lend out*, as the erroneous phrase is. And every half year we see summaries in the newspapers, shewing that all the Joint Stock Banks have, perhaps, an aggregate sum of £40,000,000 of money deposited with them, and it is generally believed that they have that sum of money to trade with. But there never was a more complete and entire delusion. These £40,000,000 of "deposits" are not £40,000,000 of cash, *but they represent the old bank note circulation.* They are nothing but an enormous superstructure of CREDIT, built up upon a comparatively small basis of bullion, exactly like the note circulation. These figures do not shew the quantity of cash at their command to lend out or trade with, but they shew the quantity of business they have done, they shew the liabilities they have created. These apparent deposits in cash, then, are nothing whatever, but the credit

created in exchange for the bills which figure on the other side of the account as Assets.

26. These two forms of banking accounts, thus presented in contrast to each other, shew how the accounts would stand just *after* the banker has discounted his customers' bills, and *before* they have begun to operate upon their accounts, in the latter form by means of cheques. Every banker does business in exactly the same way, and when their respective customers begin to operate by means of cheques, the following three different results may ensue :—

1. The actual money may be drawn out.

2. It may be transferred to the account of another customer of the same bank.

3. It may be an order to pay another bank.

But, in the last case, if the banker A is ordered to pay the banker B so much, the chances are that B will be directed to pay A very much the same amount, and then an interchange of these respective orders may take place, and only the differences be paid in cash. And this is exactly the same in effect, as an interchange of bank notes.

27. Thus, we see that the modern system may be expressed in exactly the same language as the old one. Banking formerly consisted in the creation and exchange of instruments of credit. And so it is now. Banking now equally consists in the creation and exchange of instruments of credit, just as much as it ever was. The only difference is, that the form of the instrument is changed, and it was by this change in the form of the instrument, that the London Joint Stock Banks were able to be founded, because the words of the monopoly clauses of the bank acts of 1709, and 1742, only specified the former method of creating these instruments of credit.

28. Now, under the former system, it was universally allowed that banks, by creating credit in the form of notes, created currency; under the modern system entries and cheques perform exactly the same functions as notes, consequently, in a scientific sense, they are to be considered as currency, just as much as notes are, and consequently, banks create currency now just as much as they did before, and the supposition that the legislature can prevent banks from dealing in credit, by prohibiting the issue of bank notes, is a mere delusion. But, at the same time, it must be fully admitted that bank notes may produce a greater inflation of credit than cheques, because there are many cases where bank notes would pass, that cheques will not pass, but wherever they do pass they are to be considered, in all respects, as the equivalents and substitutes for notes.

29. These considerations afford an explanation of some very well known phenomena, which are generally misunderstood, respecting the Joint Stock Banks, which publish their accounts, and give interest on deposits, according to the rate of discount. When the rate of discount rises very high, it is universally observed that the apparent deposits in banks decline, and it is very commonly explained by saying, that when interest rises very high, people take their money out of banks, to invest it in other ways. But such an explanation is paradoxical on the face of it. Banks raise the rate of interest to attract deposits, and not to drive them away. Besides, if

one asks contractors, builders, &c., at such periods, they will say, that work is stopped because people put their money into banks, because the interest is so high. Thus, we meet with two diametrically contrary assertions as to the flow of money at such periods; but, if we understand the real nature of these so-called deposits, the reason of their diminution is plain; because, when the rate of discount is raised very high, it stops the discount of bills, it stops the creation of credit, in fact, *it is not a diminution of deposits in cash, BUT IT IS A CONTRACTION OF CREDIT.*

30. The very same phenomenon is witnessed after a great commercial crisis, such as that of 1857. In July, 1858, the aggregate of the sums deposited with the Joint Stock Banks, appeared to be considerably less than in July, 1857; and this was, in fact, owing to the diminished number of bills discounted from the general contraction of mercantile operations, and by no means necessarily to a diminution in the actual cash deposited.

31. Now, it is generally admitted, that issuing notes is coining credit, that it is, in fact, to all intents and purposes, equivalent to creating capital, both as regards the issuers of the notes, and their effects to the public, a species of capital which is liable to be destroyed, and is capable of very serious abuse. But it also necessarily follows, from the preceding details, that the modern system of banking is equally coining credit, and that just as much as the figures, or the liabilities created, exceed the actual cash, they are equivalent to a creation of currency, or to an increase of capital.

32. We may now here notice an objection which is fully discussed under the term *Currency*, but which is so intimately connected with banking, that we must repeat it. Many persons say that bills of exchange are not currency, because they require to be discharged in money, and many more think that bills of exchange are analogous to bills of lading, because one *represents*, as they erroneously call it, money, and the other represents commodities. It is perfectly true that all bills of exchange must be expressed to be payable in money, but it is a most grievous mistake to suppose that they are all paid in money. The immense majority of commercial bills are not paid in money, but by figures in bankers' books. Most men in commerce draw bills and accept bills, that is, they have debts due to them, and debts due by them. These fall due at different dates, and when a trader's acceptances are falling due, he takes some of the debts due to him to his banker, and sells them to him. The banker buys them, as we have already explained, by creating fresh liabilities of his own, and writing down so many figures to his customer's credit. When his own acceptance falls due, and is presented to him for payment, he draws a cheque upon his banker, and if the holder of the bill is a customer of the same banker, the matter is settled by a mere transfer of figures in the banker's books; if he is the customer of another banker, the two bankers have probably an exchange of debts, arising out of similar transactions on both their parts, and the debts are settled with the payment of no more coin than the difference; or if, as is more usually the case, the holder of the bill has deposited it with his

banker, and the acceptor has made it payable at his own banker's, who pays it as a matter of course, as an ordinary cheque, the day it is due. Thus we see that the whole monetary business of the country is gradually reduced to the *creation and exchange of instruments of credit*, and the only use of the actual money is to pay the differences. Now, this is the regular practice of banking; this is the way in which the vast majority of bills of exchange in commerce are paid, and consequently the whole system may go on for an indefinite time, and to an indefinite extent, without a single coin being required. Thus, a merchant may carry on trade for any length of time, and pay bills to the amount of millions of money, and never touch a single coin. But these instruments of credit perform exactly the same functions as if they were coin, and in a scientific point of view, they are to be considered in all respects as if they were coins. They are all a part of the currency, or circulating medium.

33. Bank notes and cheques are, therefore, peculiarly the instruments of credit, created by Banking, as bills of exchange are by commerce. The only practical difference between them is, that the former are, on the face of them, direct obligations of the banker to pay the money stipulated; the latter are not so, unless he has sufficient funds of his customer to meet them. The consequence is, that when cheques are transferred from hand to hand, it is usual to require the transferer to indorse them, so that if the banker refuses to pay them, the liability of the transferer may be preserved. In Bank notes this is not usually done, because as the holder may demand payment for them on the instant from the bank, few persons expect that it will fail before payment is demanded, and consequently Bank notes usually pass from hand to hand by simple delivery, without indorsement.

34. Both Bank notes and cheques are subject to the general rule of law, which affects all instruments of credit, that whoever takes one in payment of a debt *without indorsement*, does so at his own peril, and has no remedy against the transferer, if it is not paid. And the indorsement only preserves the liability for a very short period; in almost all cases not more than twenty-four hours. The law intends that all Bank notes and cheques should be presented for payment within twenty-four hours. If the receiver of a Bank note requires the transferer to indorse it, which is by no means unfrequently done, and if on presenting it within a reasonable time he finds the banker has failed, he has his remedy against the transferer, just exactly as if it was a cheque. On the other hand, if he delays presenting it beyond a reasonable time, and then finds the banker has failed, he has no remedy against the transferer, either in the case of an indorsed Bank note or a cheque.

35. We have shown (CREDIT) that a merchant deals with credit: it follows by the preceding considerations that a banker is a *dealer in credit*. A merchant brings him debts payable some time after date, for sale, and by a flourish of his pen the banker transmutes these into debts payable instantly, which have precisely the same effect in commerce as so many sovereigns. He reaps exactly the same profit by creating a credit in favour of his customer, as if he gave him the

actual cash. And the cheques drawn against these credits, so created by the banker, circulate commodities exactly in the same manner as Bank notes do, which circulate commodities exactly in the same manner that gold and silver money does; consequently these credits so created by the banker are CURRENCY, or CIRCULATING MEDIUM, and hence it manifestly follows that BANKING CREDIT IS BANKING CAPITAL.

36. But the preceding details by no means exhibit to their full extent the amazing powers of Banking in commerce. We have given them merely to show the general meaning of the word Banking. We shall now endeavour to exhibit some of the practical effects of the introduction of Banking into a country where it did not previously exist, which is the true way to form a real estimate of its powers, and its advantages to the community.

37. Before the introduction, then, of Banking every merchant had bills to pay, or acceptances to meet, and he had also bills to receive. For those he had to pay, he must have kept the amount in actual money; and for those he had to receive, he must have kept at least one (perhaps a merchant in large business must have kept more than one) clerk, for the special duty of collecting his bills. Moreover, if he made any mistake, the loss would fall on himself. Now, he leaves all his spare cash at his banker's, and makes his acceptances payable there; and besides that, he sends all the bills which are due to him to his banker, who collects them for him, and if any mistake occurs the loss falls upon the banker, and not upon him. Moreover, when his own acceptances fall due, he does not, as we have seen, require to have any actual money at all to pay them with. As they become due he discounts fresh bills with his banker, who creates a credit in his favour by writing down so many figures to his account, and thus his acceptances are paid, *not in money, but by means of the credit created by the Banker*. Thus we see that the Banker multiplies the paying medium of the country.

38. Now the slightest reflection will show any one the enormous saving of money that is effected by this means. It is actually found in practice, that it saves about *nine-tenths* of the actual specie that would be necessary to carry on any given amount of business without it. Now, let us suppose, that a country required £1,000,000 in specie to carry on any amount of business, and let us suppose that by means of the introduction of banking, it was able to dispense with £900,000 of this; that is to say, that amount of specie might be displaced, and instruments of credit substituted for them. Then it is quite clear that these £900,000 in instruments of credit, which performed the same functions as the same amount of money, are to be considered in all respects as equivalent to that amount of money; that they are equally *currency, or circulating medium*, as the money itself. And consequently £900,000 of specie being disengaged from its functions, is capable of being applied as *additional capital*, and is in fact equivalent to so much increased capital. Hence, we see, that the introduction of banking, is a *bonâ-fide augmentation of capital*. For we unhesitatingly assert this proposition, *that if an instrument of credit performs exactly the same functions as money, it is, in a scientific sense, to be*

considered as money. Hence we arrive at this conclusion, that by the introduction of banking the same amount of business may be carried on with *one-tenth* of the quantity of money, that would be required without it, or else supposing that the same amount of actual specie is retained, the quantity of business that may be carried on with it may be *multiplied* **TENFOLD**.

39. Thus we see how the prodigious stimulus which is always practically felt on the introduction of banking, is explained. The preceding details show the enormous error of those who think that banking does not add to capital, that it only distributes existing capital. It is unquestionably true, that no mode of banking can create actual gold sovereigns. But banking *creates* instruments of credit, and if these be voluntarily received and accepted by the community at large, at exactly the same value as if they were actual sovereigns, then just by so much as they exceed in number the quantity of actual sovereigns in the banker's possession, they are to all intents and purposes, an addition to existing capital. For not only does he save the use of the actual coin in an immense multitude of instances, where it would be required, if Banking did not exist, and liberates it, and enables it to be applied to promote commerce, which is in its practical effects identical with an addition of actual coin to that extent, but by the extra multiplication of his promises to pay over and above that, he is enabled to make what is to all intents and purposes a further addition to the moving power of commerce, to an enormous extent.

40. Banking is, therefore, the most potent engine for increasing the motive power of any given quantity of actual capital, that it is possible to devise, consistently with keeping up the value of the currency at its level with bullion. John Law says most justly, "The introduction of credit, by means of a Bank, augments the quantity of money more in one year, than a prosperous commerce could do in ten." And just as Banking spreads more extensively does it multiply the producing power of the community. We have shown the great economising power of railroads (RAILROAD) in diminishing the quantity of capital required to supply any given demand for commodities; now, an extension of banking acts precisely in an analogous manner, but to a much greater degree; for not only does it economize the actual substance to a very great extent, but it makes the "promise to pay" of equivalent value with the actual payment. And it is just in this multiplying power of capital that the principal danger of too rapid an extension of Banking consists. The rate of discount always depends upon the proportion between actual capital and the demand for it, or on the debts offered for sale. A sudden change in the proportion of these causes the most violent fluctuations in the rate of discount. If an unusual quantity of capital is thrown too suddenly upon the market, the only result must be a rapid and extreme fall in the rate of discount. Now a too rapid extension of Banking, has precisely the same effects as throwing a vast quantity of capital suddenly on the market. For not only do the actual operations of Banking have all the practical effects of adding to the existing capital, but to that will be added all the evil effects of over competition, an unnatu-

rally low rate of discount, thereby a depreciation of the currency; an export of bullion, a joint stock bubble mania, with all its rogueries, then a collapse, and commercial ruin.

41. We see, too, by the preceding details, the prodigious error of the common description of the business of banking. For it is almost universally considered that *bankers are merely agents between persons who want to lend and those who want to borrow*. Of all the fallacies that beset Political Economy at the present day this is one of the most mischievous and pestilent. It is a striking example of Bacon's *idola fori*, or fallacies of language. It is an entire misconception of the nature and effects of banking, and no sound progress can be made in Political Economy, until it is entirely extirpated from the subject. It is a misappreciation of the nature of banking, and is not true, in the ordinary sense of the words, lending and borrowing; because, in the ordinary cases of lending and borrowing, the lender deprives himself of the use of the capital he lends. But, in ordinary banking, both parties have the complete right to make use of the very same coin. The customer lends his money to his banker, and yet has the same free use of it, as if it was in his own chest—the banker employs that money in promoting trade; upon the strength of its being deposited with him, he buys debts with his "promises to pay," and the person who sells the debt has the free use of the very coin, which the lender has the same right to demand.

42. And it is just in this very point, that the distinction between a *banker* and a *bill broker* consists. A bill broker buys bills of exchange with actual cash, and therefore the quantity he buys can never exceed the quantity of cash he has. On the other hand, a banker always buys bills with his promise to pay cash; consequently, the only limit he need impose upon his business is that which his own judgment may suggest to him, to keep in a condition to meet any demands that may be made to him.

43. We must also correct a most inaccurate notion, which is almost universally prevalent, as to the nature of banking. The common notion of banking is, that it consists in *lending* money on the security of Bills of Exchange. Such an idea, however, is profoundly erroneous, it is a complete misconception of the nature of the business. When a banker discounts a bill for his customer, he does not lend him money on the security of the bills, but he *buys a debt that is due to him*. If he *lent* his customer money, it would be the customer's duty to repay the money, when the bill became due. But every one knows it is the acceptor's duty to pay the bill, and the customer's name on it is merely a *warranty of soundness*, as it were, of the debt; and, it is only in the event of the acceptor not paying the bill, that the customer is liable. If the banker did not think the debt a good one he would not buy it, and when the customer has sold it to his banker, he never expects to hear of it again. Now, many persons admit that, if a man transfers a bill *without indorsement*, that is, a *sale* of the bill, and not a mere loan of money, but when the transferer indorses it, they say that alters the nature of the transaction, because, if the bill is not paid by the acceptor, he is still liable. But, the least reflec-

tion will shew that this distinction is utterly untenable; because, in the first place, it is only a *contingent liability*, and not an actual liability, until payment is demanded. The real difference between selling a bill, with or without indorsement, is exactly analogous to that of selling a horse with or without a limited *warranty of soundness*. If a man buys a horse without a warranty, there is an end of the transaction. If he takes a warranty with it, it is usually limited to a certain time. If the horse is sound, well and good, the transaction is finished; but if the buyer finds out a blemish, and gives notice to the seller *within the agreed upon time*, he returns the horse, and gets back his money. But though the liability of the seller of the horse continues during the currency of the warrant, it is no *debt* until the price be demanded back again. It is exactly the same with a debt. The debt is an article of commerce just like the horse, and the indorsement is, in its nature, a warranty of its soundness; and, like most warranties, very strictly limited in its duration, because it only lasts for a very short time after the debt is known to be bad, (*INDORSEMENT*), in most cases, only twenty-four hours. If the holder of the bill neglect to demand payment within that time from the indorser, his remedy is gone, and the indorser is discharged, exactly as in the case of an ordinary warranty. To say, therefore, that a banker *lends* money to his customer upon the security of the bills, is just as irrational as to say that the buyer of a horse lends money to the seller, on the security of the horse. The true description of the ordinary business of a banker is, that he buys debts with warranty of soundness, with his "promises to pay."

44. The preceding details also shew the entire fallacy of the almost universal opinion that the London Banks, public and private, other than the Bank of England, are mere Banks of Deposit, and are not Banks of Issue. Thus, Mr. McCulloch says, (*Dictionary of Commerce, Art. Bank*.) "Banks are commonly divided into the two great classes of *Banks of Deposit*, and *Banks of Issue*. This, however, appears, at first sight, to be rather an imperfect classification, inasmuch as almost all Banks of Deposit are, at the same time, Banks of Issue, and almost all Banks of Issue are also Banks of Deposit. But, there is, in reality, no ambiguity; for, by Banks of Deposit are meant Banks for the custody and employment of the money deposited with them, or intrusted to their care by their customers, or by the public; while, by Banks of Issue, are meant Banks which, besides employing or issuing the money intrusted to them by others, issue money of their own, or notes payable on demand. The Bank of England is our principal Bank of Issue, but it, as well as the other Banks in the different parts of the empire, that issue notes, is also a great Bank of Deposit. *The private Banking Companies of London, and the various Provincial Banks that do not issue notes of their own, are STRICTLY BANKS OF DEPOSIT.*" We have no hesitation in affirming that this last paragraph is an entire misconception, because the plain meaning of it is, that the private Banking Companies of London do not *create credit*, whereas, we have shewn that the *business of Banking consists in creating credit*. The Banks of Venice, Amsterdam, and Hamburg, are what we

consider the pure types of Banks of Deposit, because the notes they issued only represented an equal quantity of bullion, and they did not *add* to the quantity of the currency. Whereas *all* the London Banking Companies *add* to the circulating medium, and, therefore, they are all to be considered, in a scientific sense, as *BANKS OF ISSUE*.

45. We thus see how entirely fallacious is the classification of Banks, as Banks of Deposit, and Banks of Issue, according as they issue Bank notes or not. Because the Banks of Venice, Sweden, Amsterdam, and Hamburg, which were pure Banks of Deposit, all issued notes; and the London Banking Companies, which, in a scientific sense, are *all banks of issue*, do not issue notes. The true criterion of whether a Bank is one of Deposit or Issue, is to be found, in our opinion, in the circumstance whether it does, or does not, multiply instruments of credit. That is, whether it does or does not *create instruments of credit exceeding the quantity of bullion it has in deposit to represent them*.

46. To show how completely at fault even the most eminent writers are on the nature and effects of Banking, we shall quote an extract from Mr. J. S. Mill (*Principles of Political Economy, Book III., Chap. 24, § 3*). In treating of the *regulation of a currency*, and the effects of the Bank Act of 1844, he says in a note, "It would not be to the purpose to say, by way of objection, that the obstacle may be evaded by granting the increased advance in book credits, to be drawn against by cheques, without the aid of Bank notes. This is indeed possible, as Mr. Fullarton has remarked, and as I have myself said in a former chapter. *BUT THIS SUBSTITUTE FOR BANK NOTE CURRENCY CERTAINLY HAS NOT YET BEEN ORGANIZED; and the law having clearly manifested its intention that in the case supposed increased credits should not be granted, it is yet a problem whether the law would not reach what might be regarded as an evasion of its prohibitions, or whether deference to the law would not produce (as it has hitherto done), on the part of Banking establishments, conformity to its spirit and purpose, as well as to its mere letter.*" We have seen in the preceding sections that what Mr. Mill says has not yet been organized, and which the law might possibly put down, is the *very thing in which London Banking has consisted for upwards of seventy years!*

47. Moreover, the Bank Act of 1844 was for the express purpose of preventing Banks from creating credit; and the almost universal opinion is that it does so—that it makes the currency vary in amount exactly as it would do if it were purely metallic. The preceding details show that the ordinary business of London Bankers consists in the daily creation of *millions of promises to pay*. And we have no hesitation in affirming that the popular belief that the Bank Act of 1844 prevents Bankers from creating credit, is, since the belief in the Balance of Trade, beyond all comparison the *MOST PROFOUND DELUSION THAT EVER DECEIVED THE PUBLIC MIND*.

48. Thus, too, a distinction which is very strongly insisted upon by an influential class of persons at the present day, is shown to be utterly fallacious. For they draw a strong distinction between "Banking" principles and "Currency" principles, maintaining that bankers have no

business to create currency, but that their simple functions are to lend out the money deposited with them by their customers. And they hug the fond idea that the Bank Act has enforced this distinction, which we have shown is a pure delusion.

49. To show the enormous practical benefits that may be produced by Banking, even by a bad system, we have only to adduce its effects in England, in the second half of the last century. Burke says that when he came to London there were not twelve bankers out of London. But in 1769, the first patent for the steam-engine was taken out by James Watt, and the spinning jenny was invented, and soon after that the country woke up from its lethargy, and commenced those great engineering works, which have so pre-eminently distinguished it from that day to this. Now, to carry out these works an enormous amount of capital in the form of money was absolutely requisite, but it would have taken a long time to accumulate this necessary quantity, and it would have required an enormous expense, because the necessary quantity of gold and silver could only have been acquired by the exportation of an equal quantity of manufactures. But this was the case—an innumerable quantity of bankers started up in all directions, who created their promissory notes, which circulated exactly as actual money did, and performed exactly the same functions as money did, and by these means these great works were carried out. Now, it is no doubt true that the monopoly of the Bank of England prevented large and powerful banking companies being formed, which would have supplied a solid currency, and that a very great number of these “bankers” were merely petty tradesmen, who were quite unfit to perform the functions they had assumed, but yet it is an undeniable truth, that the notes they issued, however bad they ultimately were, so long as they actually did circulate, were circulating medium, and they produced the same effects as gold and silver, and they were *capital*. A bad and dangerous species it is true, but yet capital. And it was by means of them, that that prodigious industrial activity was maintained. And this well exemplifies the error of those who think that Bank notes are not capital, because, say they, that if one of the public hold one of the banker's notes, the banker owes it, and thus the debt and the credit being equal, the result is *nil*. But that is not the true mode of viewing the question. It is perfectly true, that if payment be demanded for the note, the banker must pay it, and the note is extinguished. But that is not the way to look at the question. Until payment is demanded, the banker's liability is only *contingent*. Now, by issuing his notes, he creates products, which have exchangeable relations with other things. A bank note, therefore, until payment is demanded for it, circulates as an independent economic entity, just like money. And, therefore, when a banker can maintain a greater amount of his notes in circulation than he keeps money on deposit, he *creates* exchangeable products, which may be used exactly as money, and are therefore capital. No doubt the area they circulate in is much smaller than the area money circulates in, but yet within that area, however small it may be, they are equivalent to money.

50. A most important function which Banks perform is that of rapidly transferring capital from one branch of business to another, and from one part of the country, where it is superabundant, to another part, where it is deficient. As the whole machinery of commerce is carried on by means of credit, if one branch of business falls off, the bills in that branch will diminish, and if another branch is developing itself rapidly, bills in that branch will increase. Now, if there were no bankers, persons who had bills to sell might have much difficulty and trouble in finding persons to buy them, and the development of industry would be stunted. But, by means of Banking, they merely sell more bills to their banker, and if he has more money at his command from other business falling off, he immediately transfers capital from one to the other. Moreover, capital has always a tendency to accumulate in agricultural districts, and to be deficient in commercial districts. In the olden time, before the institution of bankers, people in the country used to bury their cash in the ground, or in secret recesses of their houses, where it lay unproductive. Now it is collected by country bankers, and remitted to the seats of commerce, where there is a constant demand for it. In Scotland, where Banking has been free for a long period, the great Banks have branches both in the agricultural and in the commercial districts. The agricultural branches remit the surplus cash of their districts to the head office in the metropolis, which sends it down to the commercial districts. In England, until comparatively recent times, this was not possible, because, until 1834, there were no Joint Stock Banks in London, consequently each separate country banker remitted the surplus from his own neighbourhood, and lodged it in some way in London, in a great many cases with the great bill-brokers at call. But the commercial districts equally felt the want of capital, consequently the bankers in those districts remitted the bills they had already bought from their customers, and sold them to the London bill-brokers, and hence arose that system of rediscounting which has been so much condemned. It is the only way of getting over the impediment created by the monopoly of the Bank of England to the transfer of capital from the agricultural to the manufacturing districts.

51. The preceding details will, we hope, give an adequate idea of the enormous importance of the Banking system in the economy of the country. It is, in fact, the heart of the whole commercial body. It attracts to itself capital, the life-blood of commerce, in the minutest rills, from every direction, and having accumulated it in a great reservoir, propels it through all the arteries and channels of commerce, vivifying and nourishing it, and spreading vigour and health through the whole commercial body.

52. Banking is now of such transcendent importance in modern society, and its ramifications are so spread through all classes of the community, that a convulsion in the Banking system spreads terror and desolation throughout the whole community. An accurate knowledge of the history and principles of Banking is of surpassing consequence to all Political Economists; we shall, therefore, lay before our readers an historical account of the chief events in the his-

tory of Banking in the most important countries. In such a matter as this, it makes very little consequence which we begin with, and we shall therefore begin with that of England.

Historical Sketch of the Rise and Progress of Banking in England.

53. Banking, in the modern sense of the word, had no existence in England before the year 1640. The exchanging of foreign money for that of the country, which was the business from which Banking sprang, was a royal monopoly. Persons who negotiated loans of money were called *money scriveners*. The Mint in the Tower had in some sense performed functions of a Bank of Deposit, for merchants, both native and foreign, had been in the habit for a considerable time of depositing in it their cash and bullion for the sake of security, under the guardianship of the Crown. But in 1640, King Charles I. being in great straits for money, as he had quarrelled with, and dissolved Parliament, before it had granted any supplies, by the advice of the Lord High Treasurer, Cottington, suddenly seized upon the merchants' cash and bullion to the amount of £120,000. The merchants immediately remonstrated warmly with the Council upon this breach of faith, and finally allowed the King to have £40,000 upon receiving security for its repayment with interest. This money, both principal and interest, was ultimately repaid to them, but the prestige of the royal honor was gone, the Mint lost its credit, and the merchants were obliged to keep their cash at home, under the care of their own clerks and apprentices.

54. Many of these, however, went off with their masters' cash to join the army. Others lent it out to the goldsmiths clandestinely, at interest at 4d. per cent. per diem, which they kept to themselves. The goldsmiths then began to lend out at interest the money lodged with them, and they began to receive deposits from the public generally, offering interest, and allowing the depositors to have repayment whenever they pleased, giving receipts for the money left with them, which were transferable by indorsement. Moreover, they began to discount merchants' bills with their own promissory notes, payable to bearer on demand, which were then called *goldsmiths' notes*. People found it much more convenient to leave their money with the goldsmiths, where they could have it whenever they pleased, along with the interest, than to lend it out on real or personal security. The goldsmiths soon received the rents of all the gentlemen's estates, which were transmitted to town. Five or six stood pre-eminent above their brethren, and Clarendon (*Continuation of Life*, p. 1166,) says, that they were men known to be so rich, and of so good reputation, that all the money of the kingdom would be trusted or deposited in their hands. *And they then first came to be called BANKERS.*

55. This new business, taken up by the goldsmiths, was found to be of great service to the Protector's government. Cromwell was always kept in monetary difficulties by the jealousy of his Parliaments. And the "bankers" were found to be very useful in advancing money in anticipation of the supplies. By this means they became almost necessary to the government. Nor did the government of Charles II. find them

less useful. The first care of the restored monarch was to disband the terrible republican armies, but they required to be paid off, and to do that, it was necessary to collect several hundred thousand pounds in a few days. The slow receipts of the taxes were quite inadequate to effect this, and the ministers were compelled to have recourse to the "bankers," and they were so well satisfied with their proceedings, that they declared the King's government could not be carried on without them.

56. Their method of doing business with the Crown was as follows. As soon as the supplies were granted, they were sent for to attend the king. He always treated with them in person, and showed them the greatest politeness. Having previously consulted with his ministers as to what immediate sums were required, he informed them what ready money was necessary by such a day. They were asked how much they could lend, and what security they would require. Each answered according to his several ability, for there was no joint-stock amongst them; one perhaps £100,000, another more, another less. When asked what remuneration they required, they at first named 8 per cent., which the king and his ministers were quite ready to give, but upon further consideration they determined to leave it to the king's own bounty, lest it might afterwards be turned to their disadvantage, mentioning, at the same time, that they themselves paid 6 per cent. for it to their customers, which was known to be true.

57. They then received an assignment for the payment of the first money that came in, under the Act of Parliament, or tallies upon such other branches of the revenue as were least charged. But even this was no security, as the king and treasurer might divert these payments to other purposes. "Therefore," says Clarendon, "there was nothing surer than that it was nothing but the unquestionable confidence in the king's justice, and the treasurer's honour and integrity, which was the true foundation of that credit, which supplied the necessities of the government. The king always treated them very graciously, as his very good servants, and all his ministers looked upon them as very honest men." We shall shortly see how their confidence in the king's honour was repaid.

58. In 1667 the first run upon the bankers took place. During the few years since the king had been restored, he had brought the country down from the highest eminence it had ever attained to in the affairs of Europe, to such a state of degradation, that it was not able to protect its own shores from the ravages of the enemy. The Dutch being wantonly provoked into a most flagitious war, burned Sheerness and Chatham, and even sailed up the river as high as Tilbury, and the good citizens of London heard for the first, and we fervently hope, the last time, the sound of hostile guns. The most ridiculous despair and consternation took possession of the people of London. "The alarm was so great," says Evelyn (*Diary*, Vol. II., p. 24), "that it put both country and city into fear, a panic, and consternation, such as I hope I shall never see more; everybody was flying, none knew why, or whither." The king alone, who never wanted personal courage, and the Duke of York, kept

their composure, and put to shame the cowardice of a general officer, who thought himself one of the greatest soldiers of Europe, who declared the Tower not to be tenable, and refused to defend it. Every one rushed in a panic to demand his money from the bankers. It was known that they had lent it to the king, and the people believed that the regular payments out of the exchequer could not be made. To quiet the public alarm, the king on the 18th June issued a proclamation to say that the payments of the exchequer would continue as usual, and stating that it was his steadfast resolution to preserve inviolable to all his creditors, all the securities and assignments made for repayment of their advances; that he would not, upon any occasion whatever, permit any alteration or interruption of these securities. He, moreover, said that he held this resolution firm and sacred in all future assignments and securities to be granted by him, upon any other advance of money for his service, by any persons on any future occasion.

59. The enormous benefits which had been conferred on the commerce of foreign countries, by the institution of Banks, had not escaped the observation of our merchants. One of them, Samuel Lamb, says Lawson, (*History of Banking*, p. 192), presented an humble address to his Highness the Lord Protector, wherein he described the great advantages the Hollanders derived from Banks, and the disadvantages England laboured under from their want. (LAMB, SAMUEL). In 1658, Lamb petitioned the House of Commons on the subject of his Bank, and a committee was appointed to consider it, but no record exists of the result. More than one project of a similar nature was brought forward, but with an equally fruitless result. Nor did these schemes diminish after the restoration. Soon after that event multitudes of such projects were started, and very warmly engaged the public attention, and were very generally discussed. But there was one fatal objection to them. The memory of the seizure of the merchants' money by Charles I., made people doubt that a Bank could be safely established under a Monarchy. The subject of Banks was discussed in a little excursion made by Pepys and a party, in 1666. He says, (*Diary*, 17th Aug., 1666),—"Sir Richard Ford did, very understandingly, methought, give us an account of the original of the Hollands Bank, and the nature of it, and how they do never give any interest at all to any person that brings in their money—though, what is brought in upon the public faith, interest is given by the State for. The unsafe condition of a Bank under a Monarch, and the little safety to a Monarch to have any, or Corporation alone, as London in answer to Amsterdam, to have so great a wealth or credit, it is, that makes it hard to have a Bank here. And, as to the former, he did tell us, *how it sticks in the memory of most merchants*, how the late king, when, by the war between Holland and France and Spain, all the bullion of Spain was brought hither, one-third of it to be coined, and, indeed, it was found advantageous to the merchant to coin most of it, was persuaded in a strait, by my Lord Cottington, to seize upon the money in the Tower; which, though in a few days the merchants concerned did prevail to get it released, yet the thing will never be forgot." And,

Sir William Temple says, in speaking of an event which we shall shortly notice "For credit is gained by custom, and seldom recovers a stain. I have heard a great example given of this that happened upon the late King Charles I., seizing £200,000 in the Mint, which had then the credit of a Bank, and for several years had been the treasury of all the vast payments transmitted from Spain and Flanders; but, after this invasion of it—although the king paid back the money in a few months, *the Mint has never since recovered its credit among foreign merchants.*" An event soon afterwards occurred which was not only rendered any project of a Bank hopeless, during the Stuart dynasty, but utterly destroyed the private bankers, who had rendered such essential service to the government.

60. Charles II. had been restored amid the frantic enthusiasm of the people, who had, of course, returned a Parliament which reflected these feelings, and made the most ample provision for his expenses. But, nothing could fill the yawning gulf of his extravagance, and the boundless rapacity of the thieves and plunderers who formed his court. At length, in 1671, his resources were utterly exhausted, and the infamous pension he received from France was utterly inadequate to maintain the naval forces he was bound to keep up. His atrocious proceedings regarding the Dutch, made him afraid to meet his Parliament, who were now in a very different mood to what they were ten years before. In this extremity the king declared that the staff of the treasurer should reward the ingenuity of the man, who should discover some method of relief. Shaftesbury is said to have the merit of originating the idea, but Clifford reaped the profit and the honor. The expedient hit upon was to seize the bankers' money in the Exchequer.

61. It appears that though the perfidy of Charles I. had destroyed the confidence of the merchants in the faith of the king, the bankers had been won over by his long apparent good faith, and gracious treatment of them, and they deposited their surplus cash in the Exchequer, in anticipation, no doubt, of the loans that would be required of them. The king was so delighted with the peculiar perfidy of the transaction, that to the promised reward of the treasurer's staff he superadded an ignominious peerage. On the second of January, 1672, appeared a proclamation, stating that the payments out of the Exchequer would be suspended for a year, but interest at the rate of 6 per cent. was promised. The king by this measure seized £1,328,526; of this sum £416,725 belonged to Sir Robert Vyner alone.

62. The bankers, it is true, were not many, but the money they had belonged in great part to their customers, and these were 10,000. This *coup de finance* was so skilfully done, that no one, except one or two of the most intimate friends of the conspirators, had the slightest warning. The consternation was dreadful in the city. Numberless merchants were ruined. The distress was felt through all ranks of society. Widows and orphans, who had no other means of investment, had lent their all to the bankers. Many persons went mad, many died of a broken heart, many destroyed themselves. It was at first promised that the suspension should only be for a year;

but year after year passed away, and neither the principal nor the interest was paid. But the intensity of the public suffering was too great, and the public indignation was too fierce to be neglected. At length, in April, 1676, the king was obliged to order the accounts of the creditors to be examined by the Chancellor of the Exchequer. This having been done, in April, 1677, the king issued letters patent, granting to each of the goldsmiths, their heirs and assigns, and for the benefit of their creditors, in lieu and satisfaction of their debts, a yearly rent, part of the hereditary excise, equal to 6 per cent. upon the debt, with a clause of redemption, upon the king paying the principal and arrears of interest. These letters were printed and made public on the 23rd of May, 1677, and a bill to ratify them was passed by the House of Lords, on the 10th of July, 1678, but unfortunately was not presented to the Commons before the end of the session, and never became law.

63. The interest continued to be paid till Lady-day, 1683, when it ceased, the royalist party having gained the undisputed ascendancy. None was paid during the reign of James II. At length, in 1689, in the reign of William III., the creditors, being worn out with despair, determined to petition the Court of Exchequer, to make an order for payment of their claims. The Crown determined to resist payment, and the litigation was protracted through eleven years, until at length the House of Lords, on the 23rd of January, 1700, gave final judgment in their favour, establishing their right to the principal and all arrears of interest. *But they were never paid one farthing of it.* An Act was passed in 1700, that after the 26th of December, 1701, the hereditary excise should be charged with interest at the rate of 3 per cent. on the principal, until payment was made of *one half* of the debt! Thus ended this monstrous iniquity. The principal never was repaid, but was afterwards consolidated with the South Sea Annuities, and still forms part of the National Debt. It has been calculated that the loss to the bankers and their creditors, from arrears of interest and retention of the principal, was nearly £3,000,000, to say nothing of the frightful expenses of such protracted litigation.

64. These proceedings utterly ruined, as may be imagined, the credit of the Exchequer of Charles II. No such thing as a public bank could be thought of for an instant, with such an unscrupulous man on the throne. Nevertheless, many schemes for the purpose were published (LEWIS, MURRAY) but as they came to nothing, we need not be delayed by further notice of them, except one. The corporation of London, it appears, had been invested from an early period with the guardianship of all orphan children of freemen, while under age and unmarried, and with their property, which was managed by a Court of Orphans. By this means a large amount of property accumulated in their hands, called the "orphan's fund," which they had been so imprudent as to lend to Charles I. and Charles II. This property, of course, was swallowed up by the rapacity of the latter monarch, but the Corporation was accountable for it. In this dilemma, they tried to get up a Bank, and the proposals were drawn up and

made public, by advertisements setting forth the great benefits to trade by the establishment of Banks of credit, in a printed paper, called "England's Interest, or the great benefit to trade by Banks, or Offices of Credit, in London." The proposal, however, did not meet with public favor, and the plan failed, and the orphans' property was afterwards made good by other means.

65. One institution, however, for a short time did succeed in establishing its existence, somewhat in the nature of those Italian Banks, which we have seen were called *Monti*. In 1693, one of the schemes devised to raise money for William III., was a Lottery to the amount of a million. A number of bankers united and agreed to purchase tickets in this Lottery, and from thence they were called "the Company of the Million Bank." Their affairs were managed by a board of twenty-four directors, who dealt in Government Annuities; and their joint stock amounted to £500,000. This Bank, or Monte, however, did not last long.

66. We must now trace very briefly the circumstances that led to the foundation of the Bank of England. The troubled era of 1688 not only, as was natural, destroyed what public credit was left, but diminished the productiveness of the taxes, and the new government was obliged to purchase popularity by abolishing the odious hearth tax. The tonnage and poundage, which in the reign of James II. produced £600,000, fell in 1693 to £286,687; and notwithstanding some additional taxes were laid on, the whole revenue in that year was only £1,510,318. Such an income was wholly inadequate to sustain the feeble and unsettled government, and the most extensive frauds and robberies prevailed among the public officers. Some of these frauds were brought to light, and the offenders punished; but though commissioners were appointed for the purpose of discovering the defaulters, the Commons resolved, in 1701, "That it was notorious that many millions of money had been given to his Majesty, for the service of the public, which remain yet wholly unaccounted for." It was alleged that in five years the almost incredible sum of £11,000,000 was thus embezzled.

67. No sooner was William III. seated on the throne, than he renewed with persevering ardour the great idea of his life, that of forming a great European confederacy to overthrow the preponderating ascendancy of Louis XIV. Parliament and the people were ready enough for war with their ancient antagonist, and supplies were eagerly voted; but they were scarce, and difficult to be got. The government at first attempted to persevere in the old plan of mortgaging the grants to be voted by Parliament. Their attempts, however, were not very successful, and in 1690 the system of allowing money to be raised on short annuities was begun, which was attended with good success. The increasing expenses of the war, however, rendered this plan too burdensome, and in 1692 a plan was brought forward for raising duties for the space of 99 years, to pay the interest of an intended loan of £1,000,000 upon a tontine scheme. The subscribers were to receive 10 per cent. till 1700, and after that £7,000 per annum were to be divided among the survivors, till their number was reduced to seven, when, upon the death of each, his annuity was to

lapse to the Crown. So low was the credit of the government, that only £108,100 was obtained on these tempting terms, and a clause was introduced by which the subscribers might obtain 14 per cent. upon any life they chose to nominate. But even these two schemes produced only £881,493.

68. All these devices, however, failed in producing an adequate supply of money to support the war, which languished in consequence. The fatal proceedings of Charles II. seem to have ruined the bankers, or, at least, to have deterred them from making advances in their former style. The government were obliged to revert to the humiliating plan of borrowing from every one in the city they could. They were obliged to solicit the Common Council of London for so small a sum as £100,000, and if they granted it, the Councilmen had to make humble suit to the inhabitants of their respective wards, going from house to house, to solicit contributions; and for these advances they had to pay in premiums, discount, and commission from 30 to 40 per cent.

69. The bankers who had been plundered by Charles II., and their assigns, had, in despair of their rights being acknowledged by the Crown voluntarily, been driven into a court of law. Some of them, however, endeavoured to come to an agreement with the Crown. When it tried to raise money by way of perpetual annuities in 1691, they thought that they might make terms for themselves. On the 18th January, 1692, their proposal was submitted to the House. They said that, whereas the debt due to the bankers and their assigns was above £1,340,000 principal, and 8½ years' arrears of interest at 6 per cent. at Christmas, 1691, they proposed to forego all arrears of interest, and to advance a sum equal to the principal, on condition that interest, at the rate of 6 per cent. should be secured to them by Act of Parliament. This proposal was subscribed by six or seven gentlemen, whose principal money amounted to £29,378, several members of the House, whose principal was £5,400, immediately declared their willingness to accept the same proposals. They believed that most of the others interested would come into the same arrangement. After a few days' delay, persons whose principal amounted to the further sum of £39,775 came in. Those who agreed to these proposals were chiefly the assigns of the bankers, and their creditors. The bankers themselves declined to join in the arrangement, for fear it might prejudice their case in the Exchequer. When the committee who brought up this report to the House first met, a proposal was made to them, that certain parties were ready to subscribe a million, on condition of receiving £65,000 a year, of which £5,000 was to be for management, and the rest for interest, *and that their bills of property, or stock, should have a forced currency, or be made legal tender, in which case they offered to advance £200,000 in cash, to be ready as a Bank, to exchange such current bills as should be demanded of them, to give them credit, and support their circulation, and that they should receive 5 per cent. on that sum.* This scheme was devised by Mr. William Paterson, and supported by several wealthy merchants in the city. The committee declined to receive the proposal for giving a forced currency to this stock, but they

were quite willing to receive such a plan, and make the stock transferable at pleasure. The proposal broke off upon this difference. Paterson and some of his friends were willing to waive the forced currency of the stock, but nothing came of it. Such was the first effort of Paterson to found a National Bank. After this failure no further proposal was made till the beginning of 1694, when the increasing public necessities made the ministry attempt to start such another project. Paterson must evidently have been a person of some weight and consideration, for the ministry sent for him again, and requested him to organize another plan. His second project was to raise a capital of £2,000,000 at 7 per cent. interest. His influence obtained forty men to subscribe £5,000 each, as a fund to circulate £1,000,000 at 8 per cent. The Lords of the Treasury, however, who were accustomed to allow 40 per cent. discount (equal to 66.66 per cent. interest! discount) on tallies at 8 per cent. interest, which had but four or five years to run, could not be persuaded that persons would subscribe at par, to a fund which had no positive determination. We have seen that the Government of Charles II. always borrowed at 8 per cent. with the greatest facility, until he robbed the bankers, so that the credit of the Government of William III. was now much worse. This plan underwent several modifications, but they all failed, and a lottery was started to supply the deficiency, which was equally abortive. Not discouraged by the failure of all these attempts, Paterson persevered and formed another project, which was to raise and circulate £1,200,000 upon a fund of £100,000 a year. Some party jealousy came at the opportune moment to assist him. Mr. Michael Godfrey, brother to Sir Edmundbury Godfrey, and some persons who were nettled at some transactions with the East India Company, now took Paterson up, and, in effect, supplanted him, for though he continued to advise and assist in the direction of the measure, Godfrey stood foremost in it, and was considered, both by the Ministers and the Parliament, as the efficient man, on whom all depended, and to whom all acknowledgments were to be paid.

70. This scheme at last succeeded; after the details had been settled in concert with the ministers, it was brought before the Privy Council, and long and anxiously discussed in the presence of the Queen. It was introduced into the House of Commons by Mr. Montague, who afterwards played such a conspicuous part in the restoration of the coinage, and the first great currency debate of modern times (MONTAGUE). And at last, after passing through many hair breadth escapes, and being more than once on the very point of being lost, the Act, Statute 1694, c. 20, was passed, by which the Bank of England was established.

71. Few things can be more surprising than that a system which had been in operation for centuries in Italy, and which had conducted so much to the stability, nay, even to the existence of so many of the Italian governments, had not been adopted in England before this time. The debt created by the establishment of the Bank of England was the first attempt in England to raise money by way of perpetual annuities; and it did not take place until the chief power in the

state had finally passed away from the Crown to Parliament. Only thirteen years after the Revolution, the king, in his speech to Parliament, 30th December, 1701, presses the House of Commons to take care of the public credit, "which," he says, "cannot be preserved, but by keeping sacred that maxim, that they shall never be losers who trust to a parliamentary security." How different from the sentiments of preceding monarchs!

72. The Act incorporating the Bank of England received the Royal assent on the 25th of April, 1694, and the chief provisions in it (Statute 1694, c. 20) are as follows:—

I. After providing for raising certain taxes mentioned in the Act, it directed that the sum of £100,000 a year should be appropriated to the encouragement of persons making a voluntary loan (i. e. a *Monte*) of £1,200,000, for the purpose of carrying on the war with France, in the following manner.

II. The Crown might appoint commissioners to receive subscriptions for the sum of £1,200,000, before the 1st August, 1694, from any person native or foreign, bodies politic or corporate, to be paid into the Exchequer, and the said sum of £100,000 per annum was set apart, to be paid to the use of the subscribers, their heirs, successors, or assigns. * * *

III. The Crown was empowered to authorize, by Letters Patent, the subscribers to the loan to assign, and transfer their stock and interest, and to prescribe the manner of doing so, and to erect them into a corporation, to be called the Governor and Company of the Bank of England, with all the usual privileges of a corporation, together with the power to acquire and hold lands, rents, tenements, and hereditaments of all descriptions, in as full a manner as any private individual, subject to a proviso of redemption.

IV. That in case the whole sum of £1,200,000 should not be paid into the Exchequer by the 1st January, 1695, then the payment to the subscribers should only be at the rate of 8 per cent. on the sum advanced; and that at any time after the 1st August, 1705, upon Parliament giving twelve months' notice, and repaying the whole of the debt due, the Corporation should cease and determine.

V. No single person was to subscribe more than £20,000, and one-fourth was to be paid down at the time of subscription, and the remainder before 1st January, 1695; in case of non-payment of the remainder, the first instalment was to be forfeited to the Crown.

VI. Unless at least one half of the capital was subscribed before the 1st August, the subscribers were not to be made a corporation, but those who had subscribed might transfer their stock and annuities as individual creditors of the Crown.

VII. The Corporation was strictly forbidden to borrow or give security by bill, bond, covenant, or agreement, under their common seal, for any sums exceeding £1,200,000, except they were allowed to do so by Act of Parliament. In case they exceeded this limit, the proprietors were to be liable in their private capacities.

VIII. The Corporation were allowed to deal in bills of exchange, to buy or sell bullion, gold and silver, to lend money on the security of

goods and wares, and merchandize, and if the loan was not repaid within three months of the time agreed upon, to sell such goods; and to sell goods the produce of their own lands.

IX. But they were strictly forbidden, either directly or indirectly, to deal or trade, or to permit any one on their behalf to deal or trade with any of the money, stock, or effects of the Corporation, in buying or selling any goods, wares, or merchandize, under the penalty of forfeiting treble the value of the goods to any common informer.

X. All the bills, obligatory and of credit, under the seal of the Corporation, made or given to any person, might, by indorsement of such person, be freely assigned to any person who should voluntarily accept them, and so by such assignees *toties quoties*, by indorsement thereon, and all such assignees might sue thereon, in their own names.

XI. That if the Corporation should purchase any Crown lands or advance any money to the Crown whatever, except by the special permission of Parliament, they should forfeit treble the value of all such advances, one-fifth to any common informer, and the remainder to the public.

XII. All fines, amerciaments, and judgments recovered against the Corporation, might be paid by the officers of the revenue, out of the annuity of £100,000.

In pursuance of this Act, a commission to receive subscriptions was nominated on the 15th June, the whole stock was subscribed for in ten days, and the Charter of Incorporation was issued on the 27th July.

73. This great experiment was regarded with some doubt and misgiving, even by its zealous supporters, they feared it could hardly be successful with so moderate an interest as 8 per cent. But several very numerous classes of people regarded it with the utmost detestation. The usurers, whose inordinate gains were checked, were filled with rage. Some said it would become a gigantic monopoly, engross all the money in the kingdom to itself, and combine with the king to set up a despotism. Some inveighed against its granting interest, which they said would draw away money from trade, quite forgetting that all the private bankers gave interest, and not perceiving in the blindness of their passion, that if the Bank allowed interest to its customers, it must advance money to traders to make it. Some became extremely anxious for the morals of the nation, which were to be placed in extreme peril by the new Bank. Some said that Banks and Storks were only to be found in republics, and prophesied a revolution. Some pretended to dislike it, for fear it should dis appoint the king in the expected supplies. The domestic enemies of the government were furious against it, because they saw how enormously it would strengthen the new dynasty.

74. We must now make a few extracts from a pamphlet entitled, *A brief Account of the intended Bank of England*, 1694, said to be by Mr. Michael Godfrey, which will illustrate the view we have given of the meaning of the word Bank, as well as the effects which were expected to be produced by it. He says, p. 1,—“The want of a *Bank* or *public fund*, for the convenience and security of great payments, and the better to

facilitate the circulation of money, &c." He also notices the common objections to the institution of a Bank—"But all this while our more refined politicians assured us that we must never think of settling Banks in England without a commonwealth; and this notion became so universal, that it was a matter of derision for any one to seem of a contrary opinion." He then confutes the supporters of the Land Bank schemes, and of inconvertible paper currency, "They now run from their new mistake to an old one, that the stamp, or denomination, gives or adds to, the value of money. With this they resolved to run counter to all mankind," and he repudiates all idea of a paper currency not based on gold and silver, p. 9. "It is necessary to premise, whatever our notionists may imagine to the contrary:—

"I. *That all money, or credit, not having an intrinsic value, to answer the contents or denomination thereof, is false and counterfeit, and the loss must fall one where or the other.*

"II. *That the species of gold and silver being accepted and chosen by the commercial world for the standard, or measure of other effects, everything else is only counted valuable, as compared with these.*

"III. *Wherefore, all credit not founded on the universal species of gold and silver is impracticable, and can never subsist—neither safely, nor long—at least, till some other species of credit be found out and chosen by the trading part of mankind, over and above, or in lieu thereof.*"

After describing the rise of interest, and the necessities of the government, he says—"For remedy of which, it was proposed some years ago, that a public transferable fund of interest should be established by Parliament. * * * In this manner it was proposed that the constitution of this fund, should, in the practice, answer the end of a public transferable fund of interest, of a Bank, and of a public Lombard at once." And again, p. 5,—*"All this while the name of a BANK or CORPORATION was avoided."* So, p. 7,—*"But though the gilded name of a Bank, and the popular one of a Corporation, &c."* So, p. 9,—*"Others of the learned tell us that this Bank, or Fund, will be so profitable."* And he clearly points out what advantage it would have in augmenting the currency, p. 17, "And if the proprietors of the Bank can circulate their foundation of £1,200,000, without having more than two or three hundred thousand lying dead at one time or with another, this Bank will be in effect as £900,000, or a million of FRESH MONEY brought into the nation, and £900,000 or a million that must have been employed in doing what the Bank will apply, may be employed to other purposes." Thus we see that the express intention of the founders of the Bank, was to increase the quantity of the currency, and that such an idea as the currency principle, or that the notes in circulation should only be equal to the coin they displaced, is not countenanced by them. (CURRENCY PRINCIPLE).

75. The institution of the Bank was followed immediately by the greatest relief to the financial distresses of the government. The war, which had long been languishing, was prosecuted with renewed vigour. All contemporary accounts agree as to the flourishing condition of the Bank,

for the first eighteen months of its existence. We must direct the attention of our readers to a pamphlet published by Mr. Michael Godfrey, in June or July, 1695, (GODFREY, MICHAEL), because it will be found that this pamphlet contains statements of fact, which are of great importance in the theory of the currency. And the circumstances of an event which we shall shortly come to, are dwelt upon by the Bullion Report, (BULLION REPORT), and by Sir Robert Peel, in his speech in introducing his Bank Act of 1844, (PEEL, SIR ROBERT), and therefore they are of great historical importance.

76. We have shewn elsewhere, (COINAGE), the disgraceful condition in which the silver coinage was at this period. We have shewn that it had been gradually getting worse during the reign of James II., and William III.; and that guineas, which were current for 21s., after their first appearance, gradually rose till, in 1695, they were usually current at 30s. each, from the clipped, worn, and debased state of the silver money. The Bank of England differed in this respect from the Bank of Venice, that in the latter Bank, the quantity of bullion in the coins deposited by its customers was weighed, and they only received credit for the actual amount of that. Consequently, it never could be called upon to pay more bullion than it actually received. But the Bank of England had not the same foresight. It received the coins at their nominal value, and its notes were payable on demand; consequently, if it received a depreciated coinage, and paid its notes in a full-weighted one, it thereby paid more bullion than it received, and thereby incurred a manifest loss, and a process of this kind continued for any length of time must necessarily have brought on a stoppage.

77. The Bank of England was a Whig project, and had been eminently successful in supporting the government in the prosecution of the war. But it had no monopoly created in its favor. We have already seen that multitudes of projects of Banks were afloat at this time. Among others, there was one promoted by a knot of persons, who were in many respects the precursors of John Law. The most notorious of them were Asgill, Briscoe, and Chamberlen, (ASGILL, BRISCOE, CHAMBERLEN). Chamberlen had matured a scheme for establishing a Bank of Credit upon land, and on the 7th of December, 1693, he and others presented a petition to the House of Commons, praying for leave to erect it. This petition was referred to a committee, who reported on the 5th February, 1694, that it was practicable, and likely to be beneficial to the nation. Fortunately, however, it went no further. The undoubted success of the Bank of England stimulated the efforts of this party, and the plan was again brought forward. King William's government were at this time formed of a mixture of Whigs and Tories. The Tories warmly patronized the new scheme. The capital of the new Bank was to be £2,564,000, which was to be advanced to government on the same principle as the Bank of England, but its trading capital, notes, &c., were to be advanced solely to landowners, for the cultivation of the land, at 3 per cent. It was, therefore, called a Land Bank. The friends of the Bank of England, who thought that they had a virtual, if not

an expressed monopoly, warmly opposed it. But the country gentlemen were dazzled with the idea of obtaining an unlimited quantity of money, at 3 per cent., when they usually paid three or four times as much. The government were too anxious to have such a timely assistance to carry on the war, and by these means an Act was passed for its establishment in April, 1696.

78. The rivalry between the supporters of the two Banks was now inflamed to the highest degree. We have shown the prostration of trade during the time the silver coinage was called in to be recoined (COINAGE, EVELYN), and before there was a sufficient abundance re-issued. The success of the Bank of England had also enraged the private bankers and money dealers, whose profits it diminished. All its enemies now made a combined movement to destroy it. They collected its notes in all directions, and on the 5th May, 1696, they suddenly presented for payment £80,000 of notes. The Directors, after a solemn deliberation, knowing the purpose for which they were presented, between twelve and one o'clock REFUSED PAYMENT of these notes, but continued their payments to their ordinary customers. As the whole transaction was thoroughly understood by the public, this suspension of payments did not, at first, have much effect upon the value of their notes, notwithstanding all the efforts of their enemies, who went about crying that the Bank was destroyed. But the extreme scarcity of the silver coin still continuing, they were obliged to make a general suspension, and they gave notice that they would only pay cash by instalments of 10 per cent., once a fortnight; and they could not maintain even that payment, but were obliged to reduce it to 3 per cent. once in three months.

79. But the finances of the state were thrown into a state of complete disorder by the total failure of the Land Bank (LAND BANK). Great arrears were due in every branch of the public service, some funds were wholly deficient, others produced much less than was calculated. Moreover, the Bank itself had not seen wherein the true functions of Banking consisted. They gave notice in the Gazette that they would lend money on plate, lead, tin, copper, steel, and iron, at 4 per cent. per annum. Much of their funds were locked up in these advances. The consequence was, that their notes soon fell to a discount of 20 per cent. When Parliament met in October, 1696, Exchequer tallies were at 40, 50, and 60 per cent. discount, Bank notes at 20 per cent. But at this time the EXCHANGES WERE RESTORED TO PAR, in consequence of the new money from the Mint coming into circulation more freely. We must beg to call the special attention of our readers to this fact, which will be found to be of great importance, *that in October, 1696, while Bank Notes were at 20 per cent. discount, the Exchanges were at par* (CARY, JOHN). This fact is of decisive authority in the theory of the Currency (BULLION REPORT; PÉEL, SIR ROBERT).

80. When Parliament met in October, 1696, it ordered the amount of arrears to be laid before it, when there appeared to be the enormous sum of £6,000,459, more than all the current coin in the kingdom was supposed to amount to. But these trying circumstances only called forth

their patriotic spirit with increased force. They immediately passed a vote that they would not alter the standard of the gold and silver coin in fineness, weight, or denomination, and that they would make good all deficiencies in the funds.

81. When the Bank of England was subjected to the mortification of declaring a partial suspension of payments, it endeavoured to retrieve its credit by making two calls of 20 per cent. each upon its proprietors, the second of which was payable on the 20th November. These measures, however, were not effectual. The calls were not promptly paid, and their funds were locked up. In February, 1697, Parliament had to take in hand the great business of restoring public credit, namely Bank notes and Exchequer tallies. On the 3rd of February, 1697, it agreed to increase the capital stock of the Bank, by receiving new subscriptions, which were to be made good by tallies and Bank notes. An Act for this purpose was passed, Statute 1697, c. 20. The chief provisions were as follows:—

I. All persons, natives or foreigners, bodies politic or corporate, might subscribe to the new stock, and the subscriptions might be paid four-fifths in Exchequer tallies, and one-fifth in Bank notes, upon which the Crown would allow 8 per cent.

II. Before the 24th July, 1697, the capital stock of the Bank was to be estimated, and to be made up to 100 per cent.; any deficiency was to be made up rateably by the proprietors, and any overplus to be rateably paid back to them.

III. All such subscribers were to be incorporated with the proprietors of the old stock.

IV. The time when the Crown might put an end to the Corporation was prolonged to twelve months after the 1st August, 1710, and repayment of all Parliamentary debts.

V. It was enacted, that during the continuance of the Corporation of the Governor and Company of the Bank of England, no other bank, or any other corporation, society, fellowship, company, or constitution, in the nature of a Bank, should be erected, or established, permitted, suffered, countenanced, or allowed, by Act of Parliament, within this kingdom.

VI. The Bank was allowed to extend its issues of notes beyond the original capital of £1,200,000, to the amount of new capital, which should be subscribed, provided that they were made payable to bearer on demand, and in case they made default in such payment, they might be paid on presentment at the Exchequer, out of the annuity due to the Bank. All notes above the sum of £1,200,000, were to bear a distinguishing mark.

VII. All the property of the Bank was exempted from taxes.

VIII. Bank Stock was to be personal property, and not real.

IX. It was made felony to forge or counterfeit any Bank note, or obligation under the common seal, or to alter, or erase, any indorsement on such a bill or note.

X. Bank Stock was exempted from any foreign attachment.

XI. The debts of the Corporation were forbidden to exceed their capital stock; if they did

so, the members were to be liable in their private capacity.

XII. All persons were forbidden to buy or sell tallies, at more than the legal rate of interest, under the penalty of forfeiting treble the value of the money.

82. Such were the measures taken to restore the credit of the Bank. And we observe that *their own depreciated notes were taken as payment, and treated as cash in the new subscription.* And not only that, but they were allowed to issue fresh notes upon these depreciated notes and exchequer tallies, as capital. These facts illustrate some subtle points in the theory of Credit (BANK NOTES, CREDIT, PAYMENT). The public, however, were still grievously suffering from want of a circulating medium, during the slow progress of the re-coining. The Bank did not issue notes below £20, which were of little use for the ordinary purposes of daily life. Montague, the Chancellor of the Exchequer, hit upon the plan of issuing Exchequer bills for £10 and £5. These bills, at first, passed at a small discount, but upon a second issue £7 12s. per cent. was allowed, and they were received in payment at par. They soon rose to par. The treasury was authorized to contract with any persons to cash these bills on presentment, allowing them a moderate premium. They were allowed 10 per cent. at first, but the Exchequer bills soon rose above par, and then the interest was reduced to 4 per cent. Under this Act, upwards of £2,000,000 of Exchequer bills were issued. These measures produced their effects very slowly; for in May, 1697, the Bank called upon those persons who were in arrear of the calls due in the previous November, as also those indebted to them on mortgages, pawns, notes, bills, or other securities, to pay in the said 20 per cent., and the principal and interest of these securities, by the 1st of June next. And at the end of that month, Bank notes were still at a discount of 13 and 14 per cent. From that time things gradually mended. The new subscriptions to the Bank, under the Act, amounted to £1,001,171 10s.; £200,000 of Bank notes and £800,000 of Exchequer tallies being taken out of circulation, and received at par in the subscription, raised the value of the remainder, and by the end of the year Bank notes, which bore no interest, were at par, and the bills, which bore interest, were at a premium.

83. We have felt it necessary to be thus minute and circumstantial in the account of this great monetary crisis, because it is of very great importance in the theory of the currency, and because it has been very prominently noticed in the Bullion Report; and it will be necessary for us to examine the account of it given there, in its proper place (BULLION REPORT), because it was prominently brought forward by Sir Robert Peel, in his speech in bringing in his Bank Act of 1844.

84. The political troubles at the commencement of the next century placed the Bank in difficulties again, in 1704 and 1707. In the latter year, the revived hopes of the Jacobites, which were encouraged by Louis XIV., threw the country into a panic. The public Stocks sank 14 to 15 per cent. The enemies of the dynasty, and the enemies of the Bank, combined to make a run upon it. The private bankers tried to swamp

their great rival, and Sir Francis Child pretended to refuse its notes. But it must not be denied, that it was alleged that the Bank itself had been guilty of these unworthy tricks. It is said, in a pamphlet entitled, *A short View of the apparent Dangers and Mischief of the Bank of England*:—"But it must not be denied, that their too great credit has been often employed for oppressing others. The gentlemen that have had the management of the Bank have too often given specimens of their tyranny; and I could tell you, when by running on a certain goldsmith with intent to ruin him, and by him the credit of his neighbours, they gave such a shock to credit in general, that they themselves suffered severely, in their own contrivances." The malicious proceedings, however, of its enemies called forth an equal amount of ardour from the government and its friends. Several of the highest nobility came forward to lend money to the Corporation, and the Queen lent it her warmest support. The Directors made a call of 20 per cent. on their proprietors, and by these means surmounted their difficulties, and restored their credit.

85. In 1709, the government were again in a state of great pecuniary embarrassment. The produce of the taxes scarcely covered one half of the expenses. In this extremity, the ministry turned to the Bank of England, and, by mutual arrangement, the following terms were proposed, and accepted by Parliament:—

I. That the interest upon their original stock of £1,200,000 be reduced to 6 per cent., with an allowance of £4,000 for managing the debt.

II. That they were to advance a further sum of £400,000 at 6 per cent. interest.

III. That they should be allowed to double their present capital of £2,201,171 10s., at the price of 115 per cent. for the new stock. Upon which they agreed to circulate £2,500,000 of Exchequer bills, and receive an allowance of 6 per cent.; one half for interest, and the other for repayment of the principal, and that no more Exchequer bills should be issued without the consent of the Bank.

IV. That their privileges as a corporation should be continued for 21 years from the 1st of August, 1711.

86. The subscription lists for the new stock were opened on the 22nd February, 1709, at nine in the morning, and by one o'clock the whole sum was subscribed at the premium. And a million more might have been subscribed before evening if there had been room.

87. But a still more important monopoly was created in favour of the Bank by this Act. The Act of 1697 had only provided that no other Bank should be sanctioned by Parliament. It did not prevent any private joint stock bank being formed, nor any other corporation or company setting up banking business. Joint stock banks were perfectly legal by common law. But yet they were deemed so essentially affairs of state, that amid all the joint stock projects which were started in 1694, no one appears to have thought of a joint stock bank. But about 1708 a company called the Mine Adventurers of England, at the head of which was Sir Humphry Mackworth, and which included several of the nobility, commenced doing all sorts of banking business, issuing notes, &c. To put a stop to

this, the clause already quoted, § 15, was inserted, prohibiting any company of more than six persons doing banking business, *that is, issuing notes payable to bearer on demand, or at any less period than six months.* And the Bank were strictly forbidden to issue notes to a larger amount than their capital stock.

88. The financial difficulties of the government at the Peace of Utrecht, in 1713, made it necessary to have recourse to the Bank again. They agreed to lend the government £100,000 secured upon Exchequer bills, at 3 per cent., upon receiving an extension of their charter, which had still twenty years to run. By the first Statute 1713, c. 11, its existence as a corporation was prolonged to twelve months' notice, to be given after the 1st August, 1742, and the payment of £1,600,000. By a second Statute that year, they were authorized to lend money upon South Sea Stock.

89. In 1716 an Act, (Statute 1716, c. 8) was passed to redeem and modify several of the public debts due to the Bank, but not altering their privileges in any way, and to make further advances at 5 per cent. They were also authorized to make such calls as they pleased upon their proprietors. They were, besides, exempted from the operation of the usury laws. They were authorized, "at their own good liking" to borrow, or take up money, at any rate of interest they pleased, above the legal rate, upon their bills, bond, or any obligation under their common seal, or upon credit of their capital stock, for any time, or to be paid on demand. In this Act the clause prohibiting any banking partnership of more than six members was repeated. The public debts due to the Bank were consolidated at an annual interest of 5 per cent., and its existence was prolonged indefinitely, until all these annuities and debts were discharged.

90. Up to the year 1711, all the permanent debt contracted by the government consisted of Bank of England Stock. The Bank had always hitherto been allowed to create an equal number of notes to replace the money thus withdrawn from commerce. That is, each loan to government was attended with an *augmentation* of currency to an equal amount. Now, to a certain extent this plan might be attended with no evil consequences, but it is perfectly manifest that its *principle* is utterly vicious. There is nothing more wild and absurd in John Law's theory of money than this. His scheme of basing a paper currency upon land, is sober sense compared with it. *If for every debt the government incurs, an equal amount of money is to be created, why here we have the philosopher's stone at once.* What is the long sought El Dorado compared to this? Even in that the gold required to be picked up, and fashioned into coin. Besides, people in this country would have to go round the globe in search of it. But let us coolly consider the principle involved in this plan of issuing notes upon the security of the public debt. Stated in simple language, it is this. *That the way to create money is for the government to borrow money.* That is to say,—A lends B money on mortgage, and then, on the security of the mortgage, A is allowed to create an equal amount of money to what he has already lent!! Granting that to a small extent this may be done without any practical mischief, yet stated as a general principle,

what can be more palpably absurd? The ravings of Chamberlen himself are not more wild (CHAMBERLEN).

91. At this period the party antagonistic to that which founded the Bank of England were in power. The dismissal of the Whigs had shaken public credit. The unfunded debt of the State was enormous; it amounted to nine millions and a half. Mr. Harley (afterwards Earl of Oxford), the Chancellor of the Exchequer, revived the idea, which we have before noticed as first suggested by Dr. Chamberlen. He persuaded a number of merchants to undertake this debt, upon receiving interest at 6 per cent., and being incorporated as a Company for 32 years, with the exclusive privilege of trading to the South Seas. This was hailed by his party at the time as a masterpiece of financial wisdom. Such was the origin of the South Sea Company, a rival which became infinitely more dangerous to the Bank of England than the Land Bank in 1696. In 1717, the government determined to make a strong effort to reduce the national debts. Proposals were invited from each of these great Companies. The South Sea Company proposed that their then capital of £10,000,000 should be augmented to £12,000,000; that the additional £2,000,000 should be employed in redeeming several public debts, and among these the Bankers' debt; that the interest on their original capital should remain at 6 per cent., and interest at 5 per cent. should be given on the new capital till the 24th June, 1718. After that date, interest at 6 per cent. should be allowed on the whole capital. That the duties upon which such interest was chargeable should be continued, and any surplus after paying them should be applied to redeem other public debts. That all sums of principal and interest might be redeemed upon a year's notice, after 24th June, 1725. That their capital and stock in trade should be exempted from all taxes whatever.

92. The Bank of England proposed that their privileges should remain untouched till 1742, as by the last Act. That an annuity of £106,500 due to them, should be reduced to £88,175 after the 25th March, 1718. They offered to advance £2,000,000, at 5 per cent. interest, on Exchequer bills, redeemable at one year's notice after 1720, and to circulate some others at 3 per cent. That the interest on the Exchequer bills they held should be reduced to 1d. per cent. per diem, but that no more should be issued without their consent. They were further willing to advance £2,500,000 for the public service, at the rate of 5 per cent. per annum. They demanded that their privileges should continue until these sums were redeemed. After a warm debate, the proposals of the South Sea Company were accepted. The Bank of England remonstrated strongly, and petitioned Parliament, reminding them of their eminent public services, and requested that all the public stocks might be made transferable, and payable at the Bank, which duty they undertook to perform without any profit to themselves, on condition that no further taxes should be laid on their capital, or upon their bills and notes. Upon further debate, the proposals of the Bank of England were accepted, as well as those of the South Sea Company, and three Acts were passed to carry them into effect. But the South

Sea Company played a trump card. They invited the King to become their governor, and having well bribed his fat German mistress, the Duchess of Kendal, they succeeded. On the 1st February, 1718, an Act was brought in, to remove any difficulties, and it was read and passed through both Houses on the same day, and on the next received the Royal assent.

93. This skirmish between these two great Corporations, in 1717, was but the prelude to a much more gigantic contest in 1720. On the 23rd November, 1719, the King recommended the state of the public debts to the attention of Parliament. This was preliminary to the introduction of a plan to Parliament, which the Ministry and the South Sea Directors had secretly projected, and determined to bring before the House before any opposition could be organized against it. It was brought in on the 22nd January, 1720. The details are given in the *Parliamentary History* (Vol. VII., p. 536,) and are much too long to be inserted here. But the outline was as follows:—They estimated the whole of the public debt at £30,981,712; they proposed to buy up the whole of these, and consolidate them into one fund, which was to be added to their capital, at 5 per cent. interest. For these privileges they offered a *bonus* of £3,500,000 to the State, payable in four instalments, to commence at Lady day, 1721. This astounding proposal was brought before the House by surprise, but its terms were not so favourably received as was expected, and gave the friends of the Bank time to rally. They reminded the House of the great and eminent services it had done the public, and obtained five days' delay.

94. The Bank determined not to be outdone in audacity. They also undertook to consolidate these debts, and add them to their capital. Upon the whole it was calculated that their proposal was more advantageous to the nation, by about £2,000,000, and was payable in less time. The South Sea Company obtained three days' delay to amend their offer. They increased the bonus to the public to £7,967,500, besides other minor points. The Bank, in a fit of wild desperation, amended their offer. The chief points were that for every £100 annuity for 96 or 99 years, they offered £1,700 Bank stock, and, after the 24th June, 1727, the interest on the whole consolidated funds should be reduced to 4 per cent. absolutely, and thenceforth be redeemable by Parliament.

95. The contest between these gigantic rivals was simply which was to devour the other. The debate was long and fierce; Mr. Robert Walpole was the champion of the Bank, Mr. Aislabie, Chancellor of the Exchequer, was the patron of the South Sea Company. The Bank of England was no where—on the 2nd of April, the South Sea Bill was read a third time, and passed by a majority of 172 to 55. Then it was carried up to the Lords. The debate was equally animated, but, as usual, less garrulous; it was ended in a single day, and the victory of the South Sea Company was still more decisive than in the Commons. The bill passed by a majority of 83 to 17. The king closed the session on the 11th of June, and congratulated Parliament on the good foundation they had prepared for the payment of the National Debt, without violation of the public faith.

96. The price of South Sea Stock on the 7th April, when the bill passed, was £310, next day it fell to £290. On the 12th, the directors opened their first subscription of £1,000,000 at £300 for every £100, having first propagated the most enormous falsehoods of alleged trading advantages they had secured in the South Seas. Twice the sum was subscribed, and in a few days the subscriptions were sold at double the price of the first payment. On the 2nd of June the stock was £890. After some fluctuations, the Company opened their books for a third subscription at £1,000; £4,000,000 were taken at that price, and before the end of June, the stock was at £2,000. The price of Bank stock at the same time was £260. The two following months were the height of the great delirium. By the middle of July, the projects before the country required a capital of £300,000,000. But the bubble was then on the eve of bursting. On the 2nd of September the South Sea Stock was at £700; on the 13th it fell to £400. All the efforts of the directors to retrieve its credit were vain. They were then compelled to make humble suit to their vanquished rivals. With great difficulty Walpole was prevailed upon to intercede in their favor with the Bank of England. After a long negotiation the draft of a contract was agreed upon by the Bank for providing means to sustain the credit of a number of their bonds. The terms were brought before the proprietors of the Bank, and approved of by them. Before, however, it could be embodied in a legal form, affairs took a very different turn. A great many of the goldsmiths and private bankers had advanced great sums on the South Sea Stock; when this fell, it brought a run upon them. Many stopped payment, and absconded. The Sword Blade Company, who were the cashiers to the South Sea Company, stopped payment. This portended universal bankruptcy. The bank had been assailed with every species of public abuse, because it had hesitated to lend its aid in supporting the South Sea Bonds. Every one looked upon it as the sole pillar of credit, but it was now in danger itself. The general failure of the bankers immediately brought a run upon it. The Bank, in these straits, devised a trick to prolong the payments. It employed a number of clerks to tell out the money that was demanded, as well as what was brought in. Payments were made in light sixpences and shillings, and large sums were paid to particular friends, who went out with their bags at one door, to deliver them to people placed at another, who were let in to pay the same money to tellers, who took time to count it over. These persons, of course, were always served first. By these means time was gained, the friends of the Bank rallied round it, and made large subscriptions to support the company, the festival of Michaelmas, at which it was usual at that time to shut up the Bank, came, and when it was opened again, the public alarm had passed off.

97. But something was required to be done to restore public credit. The South Sea Company were permitted to sell annuities to the value of £200,000 a year. The Bank bought them at twenty years' purchase, and was allowed to add the £4,000,000 to its capital; it then stood at £8,959,995 14s. 8d.

98. Up to the year 1722 the Bank had divided the whole of its profits among the shareholders, and had made no reserve for any contingencies. The dividend in consequence had been extremely variable. It had fluctuated from $18\frac{1}{2}$ per cent. in 1706 to 6 per cent. in 1722. The inconvenience of this was strongly felt, as as well as having no fund to fall back upon in cases of emergency. These had hitherto been met by calls upon the proprietors. In this year the directors established a reserve fund, which is called the Rest.

99. Several financial transactions took place between the government and the Bank, which need not be detailed here. Upon the previous occasions of the renewal of the charter, there had been much public discussion as to the expediency of continuing this monopoly. The Bank, however, had always been able to relieve the continually embarrassed state of the finances, and had thus purchased its privileges. As the time was drawing near for the expiry of the monopoly in 1742, these discussions became more frequent and animated, and several attempts were made to set up banks in such a manner as to evade the clause in the Act of 1709. But against all the arguments of its opponents the Bank had a very solid and conclusive reply. The government was, as usual, in difficulties, and the Bank agreed to lend them £1,600,000 without interest. In consideration of this, their exclusive privileges were continued till twelve months' notice after the 1st August, 1764. It was besides determined to stop up all loopholes in the Act of 1709, and the clause already quoted, § 17, was inserted, framed in the most comprehensive terms that the ingenuity of lawyers could devise, to prevent any rivals, and which did have that effect for a long period.

100. In September, 1745, the rebellion in Scotland seemed to be assuming formidable proportions, and produced a run upon the Bank, which was fomented by the friends of the Prince, in order to get money to assist him, as well as to embarrass the government. The Directors resorted to the same expedient as they had done in 1720—to protract payment, and to give time for their friends to rally. Bank notes fell to a discount of 10 per cent. In this crisis Sir John Barnard, one of the members for the city, took the lead, and at the head of 1,600 merchants and principal traders, met at Garraway's Coffee-house, on the 26th September, and came to a resolution pledging themselves to support the credit of the Bank notes.

101. In 1746, the Ministry were again in difficulties from the political disturbances of the preceding year, and they were obliged to apply for assistance to the Bank. The proprietors authorized the Directors to cancel £986,000 of Exchequer bills, upon receiving an annuity of 4 per cent., and to create new stock for that purpose. This increased the paid up capital to £10,780,000, which was not further augmented till 1782. In 1750 the interest upon £8,486,000 of the debt due to them from government was reduced to 3 per cent.

102. In 1759 the Bank began to issue £15 and £10 notes, none before this time having been below £20.

103. In 1764 the Bank's charter expired. The

terms of renewal were an absolute gift of £110,000 to the nation, and a loan of £1,000,000 on Exchequer bills, for two years, at 3 per cent. interest. The Charter was renewed on these terms, and the monopoly continued till twelve months' notice after 1st August, 1786, and the repayment of the government debt.

104. In 1772 the first of those great commercial panics took place, in which the Bank was called upon to take a prominent part in supporting public credit. The two preceding years had been distinguished by the most extravagant overtrading. On the 10th June, 1772, Heale and Co., bankers in Threadneedle Street, stopped payment, involving several others. The Bank of England and some merchants came forward to support credit, which for a few days had the appearance of being successful. But in ten days' time, a general crash ensued. Among others, the great banking house of Colebrook stopped payment, who were the correspondents of the Ayr Bank, in Scotland. That rotten institution stopped payment, and involved a large district of country in ruin and desolation (*BANKRUPT IN SCOTLAND*). The whole city was in consternation; there had not been such a prospect of a general bankruptcy since the South Sea Scheme. By the measures taken, the panic was at length allayed, but the bankruptcies of that year amounted to the unprecedented number of 525. These speculations had been general throughout Europe, and in 1773 the crash extended to Holland. About the beginning of that year, the failures in that country were of so alarming a nature, and so extensive in their influence, as to threaten a mortal blow to all credit, public and private, throughout Europe. They were caused by great speculative dealings in trade, as well as in the public funds of different countries, and the losses were estimated at £10,000,000.

105. It was about this period, though the exact date is difficult to ascertain, nor is it very material, that the London bankers discontinued the issue of Bank notes, and adopted that change in the method of doing business, which we have mentioned in § 20. The method of doing business by means of entries and cheques, instead of Bank notes, had so many practical advantages over them, that it universally superseded them in London; and from that time forward London bankers ceased entirely to issue notes, though they never were forbidden to do so until the Act of 1844. This change, simple as it was, is of great historical interest, for it was the circumstance which destroyed the monopoly of the Bank of England. By a fortunate accident, the opportunity that this method afforded of circumventing the monopoly of the Bank, was not discovered till many years afterwards. If it had been, there cannot be a doubt but that Parliament would have put it down very quickly, for it was the manifest intention of the Legislature to confer a *bonâ fide* and absolute monopoly upon the Bank. When it was discovered, the age of such monopolies had passed away, and the demand of the Bank to have it provided against was refused.

106. The termination of the seven years' war took place in 1763, when it is usually said that this nation finally took that rank in the scale of nations which she at present holds. After long

and doubtful contests, in which victory often trembled in the balance, the star of England triumphed over that of France, both in the East and in the West. Coincidentally with this, the industrial energies and mechanical genius of the nation burst forth with unparalleled splendour. Previously to this time, Great Britain was probably more backward in great public works than any state in Europe. She could show nothing that could be compared with the great French and Spanish engineering works. The Canal de Briare, made by Henry IV., preceded the first canal in England by 150 years. The great canal of Languedoc was completed upwards of half a century before the smallest canal in England was begun. And Spain had preceded France by three quarters of a century. The canal of the Ebro is due to the genius of Charles V. In Italy, Gerbert (Sylvester II.), the morning star of modern literature and science, was famous for his hydraulic works in 999; and those of Lombardy, executed in the eleventh century, are still the admiration of modern engineers. The first Act for a work of this nature, however small, in England, was passed in 1755. Facility, quickness, and cheapness of transit are the very foundation of commercial greatness. Brindley, the father of the modern commercial greatness of England, completed the canal from Worsley to Manchester in 1762. This was as prodigious a stride in advance of the age as the opening of the railway from Manchester to Liverpool was in its day. The success of this was triumphant. Then commenced the great era of canal making. Within 25 years the country was covered with a network of canals, such as no other country in Europe, but Holland, can boast. Taking into consideration the comparative wealth of the country at the two periods, the period from 1770 to 1795 was fully as wonderful an effort in canal making, as the period from 1830 to 1855 was in railway making. Concurrently with this prodigious extension of the powers of transport, an equal extension of the powers of production took place. The year 1769 witnessed the birth of James Watt's STEAM ENGINE and Arkwright's SPINNING JENNY. Thus BRINDLEY prepared the means of transport, WATT and ARKWRIGHT then enabled men to produce, and ADAM SMITH taught them to exchange. Mysterious, that such men, each of whose minds was so marvellously adapted to each of the others, should all flourish at the same time. Each of their labours was necessary to give full development to the powers of the others. It would almost seem like a dispensation of Providence, that at this particular period such an extraordinary outburst of mechanical genius took place. It would almost seem that these three men, Brindley, Arkwright, and Watt, were specially raised up by Providence to elaborate those miraculous resources which, it is impossible to doubt, carried this country triumphantly through that terrific contest, which was then just about to burst upon the world.

107. We have seen that the Bank of England at its foundation received no monopoly. But when we consider the unquestionable services which it had rendered to government, and the terrific state of public credit, owing very much to the total failure of the Land Bank, we need not be surprised that the Bank of England em-

ployed these circumstances for the purpose of procuring a monopoly, nor considering the ideas of that age, can we be surprised that they received it. But, nevertheless, making allowance for all these circumstances, it is one of the most deplorable Acts that have come down to our time. The founders and the contemporaries of the Bank felt the benefit of its eminent services, but the consequences of this original sin fell with terrific force on their descendants of the third and fourth generation. Many an evil principle may lie dormant for a long time, and produce no apparent mischief, till some particular circumstances arise, which call it forth. It was just at this period, that the original sin of the monopoly of the Bank began to tell upon the country. The seeds of future ruin, misery, and desolation were now sown broadcast throughout the land. The prodigious development of all these industrial works demanded a great extension of the currency to carry them on. What was required was to have banks of undoubted wealth and solidity, to issue such a currency. Bank of England notes had no circulation beyond London. Its monopoly prevented any other great banks being formed either in London or the provinces, and it would not extend its branches into the country. Scotland possessed at this time three great and powerful joint stock banks, and it was just at this period that they began successfully to extend their branches into the country. England required to have a currency, and as it could not have a good one, it had a bad. Multitudes of shopkeepers in the country, grocers, tailors, drapers, started up like mushrooms, and turned bankers, inundating the country with their miserable notes. Burke says that when he came to England in 1750, there were not twelve bankers out of London, in 1793 there were nearly 400. It is no doubt true that many of the most respectable banking firms of the present day also took their rise at this time, but they were comparatively speaking few, the great majority were such as we have described above.

108. In 1782 the unhappy war with America was fortunately terminated, and immediately a prodigious extension of the foreign commerce, which had been previously unusually restricted, took place. The enormous markets thrown open to the merchants, led to the most extravagant over trading, which was greatly fostered by the most incautious issues of the Bank, and a very alarming crisis began, which threatened to compel them to stop payment. The directors, however, considered that if they could only restrain their issues for a short period, the returns in specie in payment of the exports, would soon set in in a more rapid manner than they went out. They determined, therefore, to make no communication to the government, *but for the present to contract their issues, UNTIL THE EXCHANGES TURNED IN THEIR FAVOR.* The alarm felt by the Bank was the greatest in the month of May, 1783. They then refused to make any advances to the government on the loan of that year, but they did not make any demand for payment of the other advances to the government, which were then between nine and ten millions. They continued this policy up to October, when at length the drain had ceased from the country, and money began to flow in from abroad. At length in

the autumn, when the favorable signs began to appear, they advanced freely to government on the loan, although at that time the cash in the Bank was actually lower than at the time when they felt the greatest apprehension. It was then reduced to £473,000.

109. The doctrine then stated by Mr. Bosanquet that guided the directors was this,—That while a drain of specie is going on, their issues should be contracted as much as possible, but that as soon as the tide had given signs of ceasing and turning the other way, it was then safe to extend their issues freely. This was the policy they acted upon, and it was entirely successful, and the credit of the Bank was saved.

110. The enormous multiplication of country banks had given rise to a great and undue extension of internal trade in this country, which was also the case throughout Europe, and the United States for some years, before 1792. The amount of bank notes in circulation, which was under six millions in 1784, had increased to nearly eleven millions and a half in 1792. At length, in the autumn of 1792, commercial failures began both here and abroad, as well as in America; the average of bankruptcies during the first two months had been 50, in November they suddenly rose to 105. This unusual number created great uneasiness, but they diminished in December. In January, 1793, they rose again. The French revolution was now advancing with rapid strides, the king had been a prisoner ever since the 10th of August. In November the Convention published what was tantamount to a declaration of war against every established government in Europe. Great Britain deemed it expedient to arm. A strong political ferment was manifesting itself throughout the country. On the execution of Louis XVI., the British Government expelled the French Ambassador, and the Convention instantly declared war. The actual declaration of war, though it must evidently have been foreseen, gave a shock to credit, which was already staggering. On the 15th of February, a house of considerable magnitude deep in corn speculations, failed, and on the 19th the bank refused the paper of Lane, Son, and Fraser, who stopped next morning with liabilities to the amount of nearly a million, involving a great number of respectable houses. In the meantime the panic spread to the bankers. It began at Newcastle. The partners in the Banks there were opulent, but their private fortunes were locked up. They issued notes bearing interest to commence at some months after date, and then they were payable on demand; when the run came they were unable to realize, and stopped payment. The panic immediately spread throughout the country, and out of nearly 400 banks, which there were then, 300 were greatly shaken, and upwards of 100 actually stopped payment. The banks of Exeter, and the West of England, almost alone stood their ground. They issued notes payable at 20 days sight, with interest commencing from the date of the note, and ceasing on the day of acceptance. The best contemporary authorities are unanimous in attributing this terrible disaster to the inordinate multiplication and reckless operations of these country "bankers," who had been established in

almost every town, and even village in the country.

111. This great pressure extended to the London bankers, as well as to the country ones. One of them says that the extraordinary state of credit had obliged every person connected with trade, and money transactions, to gather in and husband every resource to meet all demands. That for six weeks back, every man of money and resources had been straining every nerve to support himself and immediate friends, and could not give that support to others which they would have been disposed to do. All these circumstances naturally produced a demand on the Bank of England for support and discounts; but the Bank, being thoroughly alarmed, resolved to contract its issues. Bankruptcies multiplied with frightful rapidity—the Government urged the Bank to come forward and support credit, but they resolutely declined.

112. This great crisis is the first of modern times, which is absolutely indispensable for the political economist to study attentively; but the Bank having totally declined to do anything to mitigate it, had no hand in alleviating it—and, therefore, we shall say no more about it here. Sir F. Baring has some valuable remarks upon it, in his *Observations on the establishment of the Bank of England, &c.*, which we have quoted elsewhere, (BARING, SIR FRANCIS), and the pathology of the crisis is considered along with that of subsequent ones in its proper place. (CRISIS, COMMERCIAL.)

113. Sir Francis Baring and Mr. Tooke both agree in saying, that nothing could be more satisfactory than the financial condition of the country during 1794, and part of 1795. Both agree that the embarrassments which led to the catastrophe of 1797 had their origin in the latter part of 1795. Mr. Tooke places the commencement rather earlier than Sir F. Baring. He states that the winter of 1794-5 was one of the severest on record, and that in the spring of 1795, apprehensions began to be felt for the growing crops. The prices of all sorts of corn advanced rapidly. The spring of 1795 was very cold and backward, the summer wet and stormy, and the harvest unusually late. Under these circumstances, wheat, which was at 55s. in January, reached 108s. in August. The same scarcity was general throughout Europe and America. France was in a still worse position than England, and the Government still further to embarrass her, and afford relief to this country, seized all neutral vessels laden with corn, bound for France; it also employed agents to buy corn in the Baltic ports, where its price had already been raised greatly, in consequence of large purchases on account of the French Government.

114. Sir Francis Baring also states that the method in which the Government contracted the loan that year tended much to aggravate the evil. He says that, in former wars, it had been usual for the Government to contract with none but the most respectable monied men, who had the undoubted power to fulfil their engagements. On this occasion the minister contracted with men who had not that power, and in order to make good their payments, they were obliged to have recourse to operations on foreign places, which deranged the exchanges, and had a still further effect in raising the rate of interest in this country.

115. These causes alone were sufficient to create a monetary pressure, but though they would have

been inconvenient, there would have been nothing alarming in them; they were, however, aggravated and intensified by other circumstances, which we must now relate.

116. The enormous abuses which might be perpetrated by an unscrupulous Government, and the dangerous power which so potent an engine as the Bank of England would confer upon them, had already been clearly foreseen by its antagonists at the time of its foundation, and had inspired them with a well grounded jealousy. We have seen that stringent precautions were taken in the first Act of 1694, to prevent the Bank making any advances to Government, without the express permission of Parliament. It had been the custom, however, time out of mind, to advance for the amount of such Treasury bills of exchange as were made payable at the Bank, to the amount of £30,000, when it was usual for the Treasury to send down orders to set off such advances against the accounts to which they properly belonged. If ever these advances reached £50,000, it was a subject of complaint. In the American war these limits had been much exceeded, and sometimes reached £150,000. Mr Bosanquet was Governor of the Bank in 1793, and the legality of such proceedings excited grave doubts in his mind, and after consulting with his brother directors, they agreed that it was a serious question, whether the penalties provided in the Acts did not extend to such transactions; they, therefore, thought it would be expedient to apply to the Government, to obtain an Act of indemnity, to relieve them from any penalties they might have incurred, and to permit such transactions, to a limited amount. Mr. Bosanquet, who conducted the negotiation with Mr. Pitt, expressly says that Mr. Pitt proposed to bring in a clause which should indemnify the directors to advance to a limited amount. He says that it was originally intended that the penalty should be taken off only in case the advance on Treasury bills should be restrained within a limited sum. This limited amount was intended to be fixed at £50,000, or £100,000. Mr. Bosanquet, however, then went out of office, and was unable further to attend to the negotiation. Mr. Pitt was much too keen not to see at once the enormous facilities Government would obtain if this Act were passed. Accordingly he pressed it quickly through Parliament, but he took care to omit any clause of limitation (Statute 1793 c. 38). Never had such a formidable engine been placed in the hands of a minister; he was now armed with an unbounded power of drawing upon the Bank, with nothing to restrain him, unless the directors should take the audacious step of dishonouring his bills. The Bank, henceforth, was almost entirely at his mercy, and then he plunged headlong into a reckless career of scattering English gold broadcast over Europe. In three years, upwards of £30,000,000 were remitted abroad. These great remittances had the inevitable effect of making the foreign exchanges adverse, and excited the greatest alarm in the Bank parlor. At the same time that this great drain of specie was going on, the Treasury bills increased to an unprecedented extent, and the demands for accommodation from the commercial world were equally pressing. Nothing could be more unpleasant than the situation of the directors, placed between these powerful parties,

contending for accommodation, which it was daily becoming less in their power to give. So early as the 11th December, 1794, the directors foresaw the ensuing pressure, and made representations to Mr. Pitt. In January, 1795, it became necessary to adopt a firmer attitude, and on the 15th they passed a resolution, that, with a foreign loan of six millions, and a home one of eighteen millions about to be raised, the Chancellor of the Exchequer must be requested to make his final arrangements for the year, without requiring further assistance from them, and more particularly that they could not allow the advances on Treasury bills, at any one time, to exceed £500,000. Mr. Pitt promised to reduce them to that amount, by payments out of the first loan.

117. He paid, however, little regard to these remonstrances, and, on the 16th April, they were compelled to remind him that he had not kept his promise that the sum should be reduced. They told him that they had come to a resolution that they would not in future permit the advances to exceed the stipulated sum. Mr. Pitt pretended that he had forgotten the circumstance, in the multiplicity of business, and promised that the sum should be immediately paid. Nevertheless, no reduction took place on the amount. Another remonstrance was equally ineffectual, and on the 30th July the directors informed him that they intended, after a certain day, to give orders to their cashiers to refuse payment of all bills, when the amount exceeded £500,000. Mr. Pitt was not prepared to comply with the request, and, on the 8th August, he applied to them for another advance of two millions and a half, but they refused to take his letter into consideration until he had made satisfactory arrangements with them for the repayment of the other advances. After some further communications, they agreed to the loan for £2,000,000.

118. The Act of Mr. Pitt had, in fact, deprived the directors of all power over the Bank. The foreign exchanges began rapidly to fall towards the end of 1794, and in May, 1795, had reached such a state of depression, as to make it profitable to export bullion; and this circumstance, as well as the knowledge that several foreign loans were in progress, should have warned the Directors of the necessity of contracting their issues; such was the course laid down by the Directors in 1783. Instead of that, their issues were greatly extended. In the quarter, from January to March, 1795, they stood higher than they had ever done before, though, no doubt, the Directors must be acquitted of the whole blame. The amount of their issues in August, 1794, was little more than ten millions; in February, 1795, it had increased to fourteen millions, though this was chiefly caused by the bills which were drawn on the Treasury on behalf of foreign governments, which were made payable at the Bank. The Directors had then to choose between endangering their own safety, or declaring the Government bankrupt.

119. These concurrent causes began to produce their full effects in the autumn of 1795. The drain commenced in September, and proceeded with alarming rapidity. On the 8th October, the Bank made a formal communication to Government, that it excited such serious apprehensions in their minds, that they felt it an absolute necessity

that the advances to the Government must be diminished. They detailed to him the various circumstances which alarmed them. Later in the month, rumours of a new loan reached the Directors; they waited on Mr. Pitt, who professed that he had not at present the most distant idea of one. On the 18th November, the Governor informed Mr. Pitt that the drain continued with unabated severity, and that the market price of gold was £4 2s. per ounce, and said that rumours were in circulation that another loan was intended, notwithstanding Mr. Pitt's denial of it so lately. Mr. Pitt said that, since their last interview, the successes of the Austrians had been so great against the French, that he was of opinion that it would highly conduce to the common cause, to aid them with another loan, not exceeding £2,000,000; but he added that if such a course would be hazardous to the Bank, every other consideration should be overlooked, and the loan abandoned.

120. This project of a loan going on, and being now proposed to be £3,000,000, the Court of Directors, after a very solemn deliberation, on the 3d December, came to the unanimous resolution, that if the loan proceeded they had the most cogent reasons for believing that very momentous and alarming consequences would ensue, from the actual effects of the last loan, and the continued drain of specie and bullion. In answer to this representation, Mr. Pitt solemnly promised them that he would lay aside all thought of it, unless the situation of the Bank should so alter as to render such a loan of no consequence to them.

121. The directors at last found that it was absolutely necessary to choose between making the Government bankrupt, and taking stringent measures to restrict their accommodation to the merchants. They resolved to fix beforehand the amount of advances they could make, day by day, and gave notice that if the applications on any day exceeded the sum so resolved to be advanced, a *pro rata* proportion of each applicant's bills should be returned, without regard to the respectability of the party, or the solidity of the bills.

122. As matters continued to get worse, the directors had several communications with Mr. Pitt, in January and February, 1796, but the project of the foreign loan being dwelt upon with much earnestness by Mr. Pitt, on the 11th of February, they came to a resolution that if any farther advances were made to foreign countries in the present state of affairs, that it would, in all probability, prove fatal to the Bank. They, therefore, earnestly deprecated any such measure, and protested against any such responsibility for the calamitous consequences that might ensue. Mr. Pitt treated this resolution with little attention, and, notwithstanding his solemn promises so frequently made, the directors discovered that clandestine remittances were still going on.

123. Under the influence of these combined drains of specie, the exchanges with Hamburgh were in a state of extreme depression during the first three months of 1796. Sir F. Baring shews that, during January, the profit was £7 10. per cent.; during February, £6 10s.; and during March, £8 7s. 6d. in transmitting gold to that place. At length the several drains began to diminish—an abundant supply of corn was obtained—the continued contraction of the Bank's issues, and the cessation of the transmission of

specie, caused the exchanges to assume a favorable aspect in the beginning of April, and it continued steadily to increase till February, 1797.

124. The stringent measures adopted by the Bank to contract its issues caused much complaint among mercantile men, and a meeting of bankers and merchants was held at the London Tavern, on the 2d of April, who resolved that an alarming scarcity of money existed in the City of London, which was caused chiefly, if not entirely, by an increase in the commerce of the country, and the great diminution of mercantile discounts by the Bank. They resolved that, if means could be found, to augment the circulating medium, without infringing the privileges of the Bank of England, so as to restore the amount to what it was before the contraction of discounts, it was the duty of every friend to trade to give such a plan the most earnest support. No result, however, attended this meeting.

125. Mr. Pitt had never fulfilled his promise, so often repeated to the directors, that the advances on Treasury bills should be reduced to £500,000. On the 14th June, 1796, they stood at £1,232,649. At the end of July he sent an earnest request to have £800,000 at once, and a similar sum in August. They were induced to consent to the first, but refused the second advance. Mr. Pitt said that the first advance without the second would be of no use to him, and begged them to reconsider their decision. The directors, thus pressed, were driven to assent to it, but they accompanied it with a most serious and solemn remonstrance, which they desired to be laid before the Cabinet. They said that nothing, under present circumstances, could induce them to comply with the demand, except the dread of a worse evil following the refusal; and they said that the advance would incapacitate them from granting any further assistance during the year. Nevertheless, Mr. Pitt made a fresh demand upon them, in November, for £2,750,000, on the security of the land and malt taxes of 1797, which was granted, on condition that the advances on Treasury bills, amounting to £1,513,345, were paid out of it.

126. Mr. Pitt took the money, but never paid off the bills. The directors again sent in on the 1st February, 1797, to demand payment of them, as they then amounted to £1,554,635, and would in a few days be increased by nearly £300,000 more. Mr. Pitt made many excuses for the non-payment, and promised to make an endeavour to do so, but he dropped a hint that another large sum of bills had come in from St. Domingo. Upon being pressed as to the amount, he said that it was about £700,000. The governor expressed the greatest apprehensions, and begged him to delay the acceptance as long as he could. Mr. Pitt then hinted that he should want a large sum for Ireland, which he said would be about £200,000. The governor assured him that the drain of cash had been continuous and severe of late, and that such a demand would be very dangerous.

127. The enormous failures of the country bankers in 1793, had been followed by a permanent diminution of the issues of the country banks to a large extent. Mr. Henry Thornton, after careful inquiry, came to the conclusion that they were diminished by one half, and that the wants of commerce had caused a very large

quantity of guineas to be drawn into the country, to supply their place. Meantime, though, in consequence of these circumstances, the exchanges had become favourable, the Bank had continued to adhere with the utmost severity to its policy of restriction; throughout the autumn of 1796, and during the last three months, they were no higher than they had been in 1782, with an amount of commerce many times larger than in that year. Commercial payments required to be made in some medium, in which the public had confidence. As the public could not get notes, they made a steady demand for guineas. The bullion in the Bank had been steadily diminishing during 1796, in December it stood at £2,508,000, when the drain began to increase greatly in severity.

128. The political condition of the country was now in a very critical state. Mr. Pitt's war-like combinations had totally failed, and England, which had commenced the war with all Europe almost in her alliance, now found herself alone, with nearly every state on the Continent, either in alliance with, or in subjection to, France. The Directory now determined to undertake the invasion of Ireland. The year 1797, commenced with the most gloomy apprehensions, and depression. The country bankers discerned that the first burst of the tempest would fall on them, and determined to provide for it, by obtaining as much specie as they could from London, and accordingly, the drain continued with increased rapidity after the beginning of the year. Mr. Pitt had hinted in his interview with the Governor of the Bank, on the 1st February, that a loan for Ireland would probably be required, which would probably not exceed £200,000, but soon afterwards the directors were struck with dismay on hearing that the amount required was £1,500,000. On the 10th February, the directors came to a resolution that before they could entertain any proposal for the Irish loan, the Government must pay off debts to them amounting to £7,186,445, which they specified.

129. At length the crisis came, and, as before, it began at Newcastle. A pressure had been going on there for some time. In addition to the manufactories and collieries, the number of troops stationed in that part of the country had been considerably augmented. The banks had imported an extra quantity of cash, to meet these demands, and were negotiating for more, when an event happened, which in the feverish state of the country, brought on a crisis. A French frigate ran into one of the Welch harbours, and landed 1,200 men. At the same time an order came down from Government, to take an inventory of the stock of the farmers, all along the coast, and to drive it into the interior, if necessary. These circumstances created a perfect panic among the farmers. On Saturday, the 18th February, being market day, the farmers, who at that time of year had the principal parts of their rents in their hands, actuated by the terror of an immediate invasion, hurried the produce of their farms into Newcastle, which they sold at very low prices, and immediately rushed to the different banks to demand specie. Seeing this universal panic, the banks came to an agreement to stop payment on the Monday, if it did not subside, which they accordingly did.

130. On the 21st February the state of the Bank became so alarming, that the Directors resolved that the time had come when they must make a communication to Government. The quantity of bullion had been rapidly diminishing, and the constant calls of the bankers from all parts of the town for cash, showed them that there must be some extraordinary reason for it. Mr. Pitt was aware that this proceeded from the general alarm of invasion, which he thought was magnified much beyond any thing to warrant it. It was agreed that a frigate should be sent over to Hamburg, to purchase specie. On the 24th February the drain became worse than ever, and inspired them with such alarm for the safety of the Bank, that they sent a deputation to Mr. Pitt to ask him, how long he considered that they should continue to pay cash, and when he should think it necessary to interfere. Mr. Pitt said it would be necessary to prepare a proclamation to put a stop to cash payments, and to give parliamentary security for the notes. But in that case it would be necessary to appoint a secret committee of the House, to look into the affairs of the Bank. The deputation assured him that the Bank would readily agree to this; and it was resolved to call a meeting of the chief bankers and merchants of London, to come to some resolution for the support of public credit in this alarming crisis.

131. The news of the stoppage of the Newcastle banks spread like wildfire throughout the country, and soon reached the metropolis. The drain upon the bankers now became a run; the first serious apprehensions that danger was imminent, were felt on the 21st February, when the drain greatly increased in severity, and on Saturday, the 25th, the cash was reduced to £1,272,000. Before this the Directors, in a state of utter bewilderment at the condition of the country, had used the most violent efforts to contract their issues. In five weeks they had reduced them by nearly £2,000,000. On the 21st January, they were £10,550,830, on the 25th February, they were £8,640,250. But even this gave no true idea of the curtailment of mercantile accommodation, for the private bankers were obliged for their own safety to follow the example of the Bank. In order to meet their payments, persons were obliged to sell their stock of all descriptions at an enormous sacrifice. The Three per cents. fell to 51, and other stocks in proportion.

132. On Saturday the 25th, the Court felt that the fatal hour was now come, when they must, for the first time since its institution, come to a total suspension of payments. A meeting of the Cabinet was held on Sunday, at Whitehall, and an order in council was issued requiring the Directors of the Bank of England to suspend all payments in cash, until the sense of Parliament could be taken on the subject.

133. The King next day sent a message to Parliament, to inform them of the step that had been taken, and recommended the matter to their most serious and immediate attention. Mr. Pitt moved that the message should be taken into consideration the next day, and that he should propose that a select committee be appointed to investigate the state of the Bank's affairs, which he believed were in the most solid condition.

134. The directors had the order in council

printed and widely circulated, and issued a notice of their own, to say that the general concerns of the Bank were in the most affluent and prosperous condition, and such as to preclude every doubt as to the security of the notes. At this time the cash in the Bank was reduced to £1,086,170.

135. The relief produced by the determination to suspend cash payments was instantaneous. The Directors, freed from the demand for cash, immediately extended their issues. In one week they were increased by nearly two millions. On the same day, a resolution was agreed to by 4,000 of the merchants in the City, to combine to support the credit of the notes.

136. Both Houses of Parliament appointed committees to examine into the affairs of the Bank. The Committee of the House of Commons reported that the outstanding obligations of the Bank, on the 25th February, were £13,770,390, and the total amount of their assets were £17,597,280, leaving a surplus of £3,826,890, over and above the debt of the Government, amounting to £11,686,800, which paid them three per cent.

137. Both Houses reported that it was advisable for the public interest, that the suspension of payments should be continued for a limited time, and a bill for that purpose was accordingly brought in. After some debate, which threw very little light on the subject, the Act (Statute 1797, c. 45) was passed. Its chief provisions were:—

1. A clause of indemnity to the Bank, and all connected with it, for anything done in pursuance of the order in Council.

2. The Bank was forbidden to make any payments in cash to any creditors, except in certain cases, and protected from all law proceedings.

3. The Bank might issue cash in payments for the army, navy, or ordnance, in pursuance of an order from the Privy Council.

4. The Bank was to make no advance above £6,000,000 for the public service, in cash or notes, during the restriction.

5. If any person deposited any sum, not less than £500, in gold, in exchange for notes of the Bank, it might repay three-fourths of the amount.

6. It might advance £100,000 in cash, to the bankers of London, Westminster, and Southwark, and to the Bank of Scotland, and the Royal Bank of Scotland, £25,000 each.

7. Payment of debts in Bank notes to be deemed as payments in cash, if offered and accepted as such.

8. No debtor was to be held to special bail, unless the affidavit stated that payment in bank notes had not been offered.

9. Bank notes would be received at par in payment of taxes.

10. The Bank might issue any cash it received since the 26th February, upon giving notice to the Speaker of the House of Commons, and advertising in the *London Gazette*, and on the Royal Exchange.

11. The Act was to be in force till the 24th June.

An Act was also passed to enable the Bank to issue notes below £5 (Statute 1797, c. 28), and by c. 32, this was extended to the country bankers, but they were to continue liable to pay money on demand for them, and in failure of doing so, within three days after demand, any

justice of the peace might cause the amount and costs to be levied by distress. An Act was also passed relating to the Scotch banks (*BANKING IN SCOTLAND*).

138. Such were the circumstances attending the suspension of cash payments by the Bank. An event of such portentous magnitude, and of whose effects there had been no previous experience, could not fail to give rise to the most conflicting opinions, as to the necessity of the measure, of the course of conduct of the Directors which led to it, and as to the policy which ought to have been adopted, under the drain which occurred in the last week of February, 1797. Having given a narrative of the chief facts here, we shall reserve a discussion upon it till we can consider the pathology of the principal commercial crises together. (*CRISIS, COMMERCIAL*.)

139. The presumed scarcity of guineas, which led to the supposed necessity of issuing the order in council, also rendered, a more abundant supply of the circulating medium necessary, and an Act was immediately passed, suspending till the 1st May, the Act (Statute 1775. c. 51), restraining the negotiation of small promissory notes. In a few days, the Bank caused to be prepared and issued £1 and £2 notes, and to supply still further the demand for a small currency, they issued a notice that they had imported a large number of Spanish dollars, which were to be current at 4s. 6d. However, it was discovered that the dollars were undervalued by 2d. each, and the directors then enhanced their current value by 3d.—these dollars were stamped with a small king's head—this was 1d. too high, and the directors having put these dollars into circulation at 1d. above their true value, the bullion merchants were not slow in seizing the advantage, and importing a large number of similar dollars, which they had stamped in a similar manner. They were all called in on the 31st October, 1797, by which time the Bank had put 2,325,099 into circulation. It at first attempted to refuse payment of the forged ones, but they were executed in so close imitation of the real ones, that it was impossible to detect them, and they were obliged to pay them all.

140. When the actual suspension took place, the foreign exchanges were highly favourable, so much so, as to make it profitable to import gold, which began to flow in in great abundance. On the 30th May, Mr. Manning stated in the House, that vast quantities of gold had flowed into the Bank, both from the country and abroad. The Government, however, and the directors of the Bank concurred in thinking that it would be imprudent to resume payments in cash, at the period when the restriction Act expired, and it was prolonged to one month after the meeting of the next session of Parliament.

141. Parliament met again on the 2nd November, and on the 15th, the House of Commons appointed a secret committee to enquire whether it was expedient to continue the restriction. On the 17th they reported that on the 11th of that month, the total liabilities of the Bank were £17,578,910, and their assets £21,418,460, leaving a balance in their favor of £3,839,550, exclusive of the Government debt of £11,686,800. That the advance to Government had been reduced to £4,258,140, while the cash and bullion were five

times the sum they stood at in February last, when the suspension was decided on, and much above what they had been at any time since September 1795. That the exchange with Hamburg was unusually favorable, and had every appearance of continuing so, unless political circumstances should affect it. That no inconvenience seemed to be felt by the bankers and traders of London, for whereas by law, they were entitled to demand three-fourths of any deposit in cash they might make, they had only actually demanded one-sixteenth. They presented a resolution of the directors, stating that the condition of the Bank's affairs was such, that it could with safety resume its usual functions. The committee, however, recommended, that in consequence of the state of public affairs, it was advisable that the restriction should be continued for a further period. After a short debate, an Act was passed to continue the restriction, until one month after the conclusion of a definite treaty of peace. In the course of the debate, Sir William Pulteney spoke with great ability against the national evils and inconveniences of the monopoly of banking by one company, and moved for leave to bring in a bill to establish another Bank, in case the Bank of England did not resume cash payments on the 24th June. Leave to bring in the bill was refused by a majority of 50 to 15.

142. The exchange with Hamburg at the time of the suspension of cash payments was 35-10, it continued to improve throughout the whole of that year, and in December stood at 38-5, which was about £13 per cent. above par. The issues of the Bank were about 11½ millions during the year. This extraordinary state of the exchanges continued during the whole of 1798, when they began gradually to fall, and in March, 1799, they were at 37-7, which was still £11 6s. above par. This was of course followed by a very great inflow of bullion, and at the end of 1798, the Bank had upwards of £7,000,000 in its vaults, and the directors expressed their readiness to the Government to resume payments in cash, the Ministry, however, thought it inexpedient in the state of the country.

143. The harvest of 1799 was lamentably deficient: it was even estimated that it did not exceed one half the usual average. By the end of the year wheat was at 94s. 2d. It continued to rise till in June, 1800, it stood at 134s. 5d., and remained at the end of the year at 133s. Under the influence of the enormous importations of wheat, the exchange with Hamburg continued to decline all through 1799, till in the last week of August, it had fallen to par. In December, 1800, it had fallen to 30s. In the meantime the price of foreign gold in coin, which had been at £3 17s. 6d. in May, 1797, rose to £4 in December, and continued at that price till September, 1799. In June, 1800, it rose to £4 5s., and in December, to £4 6s.

144. The arguments and ability of Sir William Pulteney, in advocating the foundation of another bank, produced great effect, and during 1799, it excited great public interest. Meetings were held for the purpose of promoting it, and numerous pamphlets were published on the subject. The Bank Directors took alarm, and they had the same solid arguments to advance as on former occasions, namely, a good supply of money. The

Ministry were of course in difficulties, and the charter had still 12 years to run, but upon advancing £3,000,000, without interest, for six years, Mr. Pitt agreed to renew it for twenty-one years from 1812. In 1800 a bill for this purpose was brought forward and passed.

145. The harvest of 1800 was, if possible, worse than that of 1799, and notwithstanding all the various measures recommended by Parliament, wheat rose in March, 1801, to 156s., barley to 90s., and oats to 47s. In the autumn of 1799, failures of great magnitude took place at Hamburg; 82 houses came down, with liabilities amounting to £2,500,000. In consequence of these, discount rose to 15 per cent. Under the influence of the enormous sums of money that had to be sent abroad in purchase of grain, the attraction of this high rate of discount, there being no power on this side to raise the rate of discount to counteract it, and other causes, the exchange on Hamburg, which had stood so high for several years, fell in January, 1801, to 29s. 8d., being upwards of 14 per cent. against England, and the market price of gold bullion (i.e., the price when paid in bank notes) was, as we have seen, £4 6s.

146. In the great monetary crisis of 1696-7, it was universally acknowledged by Parliament, and the most eminent merchants, that it was the bad state of the coinage which produced the great rise in the market price of bullion, and the heavy fall in the foreign exchanges; and we have seen that the restoration of the coinage immediately rectified the exchange. At that time bank notes were not a legal tender, and the language invariably applied to them, when their current value differed from their nominal value, was that they were at a discount. When the men of that day saw that the bank notes were a promise to pay so many "pounds" on demand, and when they saw that the persons who issued them were unable to pay that number of pounds, and that no one would give that number of pounds for them, they never used any other expression regarding these facts, than that the notes were at a discount. There is no trace of any one having thought of saying that it was the notes that denoted the pound sterling, and that bullion had risen. When the reform of the coinage took place, and the exchanges were simultaneously rectified, it was said that the reform of the coinage *caused* the restoration of the exchange, and numerous merchants had written pamphlets to combat a delusion which was rather prevalent among some persons, that bullion as a commodity could have a different value to bullion as coin, except on account of the depreciation of the coinage. And it was clearly understood by them, that the exchange never could vary but very little beyond the cost of the transmission of specie.

147. Such were the truths established when a metallic currency was the only one thought of in estimating value. But at this time a new principle was introduced—there was what was substantially an inconvertible paper currency. At this time most men's ideas were transferred from the metallic currency to the paper currency. Ever since the issue of £1 notes, people thought of them when they spoke of prices, as being so many pounds. When the suspension of cash payments took place, there was a general expectation that Bank notes would be depreciated, but the general

resolution of bankers and merchants to support the credit of the bank, the determination of government to receive bank notes in payment of taxes at their par value, and the great caution exercised by the directors during the first few years after the restriction, had removed all these apprehensions, and for some years bank notes circulated at par.

148. At this time, however, phenomena occurred, which directed the attention of many persons to the state of the paper currency. The market price of standard gold up to September, 1799, had continued at £3 17s. 6d. per oz., and the price of foreign gold in coin had been somewhat higher, on account of its greater use as coin, than as bullion. But in June, 1800, the price of foreign gold experienced a sudden and extraordinary rise; it rose to £4 5s. per ounce, silver rose to 5s. 7d. per ounce, and the foreign exchanges fell below par. In January, 1801, gold and silver were each 1s. per ounce higher, and the Exchange on Hamburg was at 29.8, being a depression of 14 per cent. below par. But the expense of transmitting specie to Hamburg was estimated not to exceed 7 per cent., and consequently there remained a difference of 7 per cent. to be accounted for.

149. It was at this time, that the great and palpable truth was discovered, that if a deterioration of the coinage produced a rise of the market price of bullion above the mint price, and a fall in the foreign exchanges, under a metallic currency, then that the converse proposition was also necessarily true. That under a paper currency, which was only the representative of a metallic currency, if the market price of bullion, (i.e. the paper price) exceeded the mint price, and the foreign exchanges fell, beyond the cost of the transmission of bullion, that excess could only arise from the *depreciation* of the representative of the metallic currency, and therefore when these circumstances occurred, THEY INFALLIBLY INDICATED THAT THE PAPER CURRENCY WAS DEPRECIATED.

150. We are not certain to whom the merit of the discovery of this great and important truth is due. There is a passage in John Law, which clearly shows that he would have immediately acknowledged it, and is by far the earliest passage that we are aware of, that indicates the connection between the paper currency and the foreign exchanges (LAW). Mr. Boyd, Mr. Henry Thornton, and Lord King, the last especially, were, as far as we can discover, the persons to whom its establishment at this particular period is due, (BOYD, THORNTON, KING) and therefore we have called it Lord King's law, though we are not certain, whether strict justice does not demand that it should be attributed to John Law. However that may be, this law is the fundamental one, on the subject of the paper currency and the foreign exchanges.

151. The definitive treaty of peace with France was signed on the 27th March, 1802. The restriction on cash payments expired of itself, six months after that event, but though the bank declared that its coffers were well supplied with specie, and that it was anxious and ready to resume payments in cash, the Chancellor of the Exchequer, Mr. Addington, brought in a bill on the 9th April, 1802, to continue the restriction till

the 1st March 1803, which was passed. The arguments alleged in favor of this measure show a wonderful decline in financial knowledge in the government of 1802 compared to 1696. At the latter period the great *reason* alleged for the reformation of the coinage, was the adverse condition of the foreign exchanges, and the rise of the market above the mint price, caused by a depreciation of the currency. (COINAGE, MINT PRICE). We have shown the triumphant success of the re-coinage, which restored the public credit and the exchange. The sagacity of a Montague could at once have seen that the adverse state of the exchange, and the high price of bullion, were entirely owing to the depreciated state of the currency, and that the only method of restoring them to par, was the immediate resumption of cash payments. So great, however, was the ignorance upon the subject, that the fact of the exchange being adverse, was the very reason alleged why cash payments should *not* be resumed. Mr. Addington, in bringing in the bill, said, "It cannot be necessary for me to inform the House, that the rate of exchange between this country and foreign parts, is disadvantageous to ourselves—that the export trade has been for some months at a stand, that while the rate of exchange is disadvantageous to us an *augmentation of the circulating cash* would create a trade highly injurious to the commerce of this country. *For several months past, there has been a trade carrying on for the purchase of guineas, with a view to exportation.* It is on these grounds that I submit to the House the expediency of continuing the restriction with regard to the cash payments of the Bank." Why, these were the very reasons why a return to cash payments should have been made without delay. The reason why the trade in buying up guineas was going on, was just because of the abundant quantity of paper, the paper "promises to pay" were falling in value as compared to the guineas, and as a necessary consequence, guineas were exported, and so far from a return to cash payments augmenting the circulating medium, it would infallibly have considerably diminished it, by making the Bank reduce its paper issues. It was because the prices of articles were so high in this country, that the export trade was unprofitable, and a reduction of the issues would infallibly have compelled such a reduction in prices, as would have facilitated the export.

152. The result of this extraordinary amount of financial error could have been easily predicted. The circumstances of the country did not improve, as the ministry had taken the most effectual measures to prevent them doing so. In February, 1803, Mr. Addington had to come forward again, to prolong the restriction. He said that the reasons which suggested it were too strong, and the necessity too urgent to be resisted. The restriction was continued last session, because the exchanges were adverse—the exchange with Hamburg was then at par—that with Amsterdam adverse. Upon these grounds he said it was expedient to continue the restriction, until the progressive advance of our commerce should produce such a steady inclination of the exchange in our favor, as to render it safe to resume cash payments. That the scarcity of the last three years had made it necessary to export twenty

millions of bullion in payment of corn, and until that came back cash payments could not be resumed. Mr. Fox said that such a mode of arguing went to establish it as a general axiom that, whenever the exchanges were adverse, cash payments of the bank ought to be suspended; and then he touched the right point: "Perhaps, even, it might happen that the unfavorable turn of the exchange against this country *might be owing to the very restriction on the bank*;" and he quoted the instance of 1772, when there was a great quantity of bad money in the country, and the exchange was adverse; but as soon as the good coinage was issued, the exchanges turned in our favor; exactly we have already seen, as was the case in 1696. Mr. Fox pointed out that the same was the case then, *because paper is not much better than bad gold*. This truth was not followed up, and while the Directors of the Bank alleged that they were perfectly able to resume cash payments, the ministry enforced a continued restriction on them, for political reasons, until six weeks after the beginning of the next session of Parliament. In the Lords, Lord Pelham said that the idea of renewing the restriction at the present moment originated solely with the government, who had had no communication with the Bank on the matter. The great truth hinted at by Mr. Fox, was much more strongly and fully stated by Lord King and Lord Moira in the House of Lords. The ministry complained that the importation of bullion was hanging fire; was it not plain that the reason was that its value in this country was depreciated by the plethora of paper? and the true way to attract it was by diminishing the quantity of the paper, and so raising the value of the gold. The bill was carried without a division.

153. The resumption of the war in 1803, rendered any idea of resuming cash payments out of the question, and the inevitable consequences of an excessive issue of paper followed; people began to hoard their guineas. The Chancellor of the Exchequer denounced the people who did so, as wanting in public spirit. Precisely the same language had been held in the tribune of the French Convention regarding assignats. The debate in the Lords produced some excellent speeches, among others Lord King enunciated the true principle regarding the regulation of a paper currency, "*A very strict attention to the price of bullion, and the state of the foreign exchanges, was alone capable of affording a just criterion, by which the quantity could be truly ascertained.*" (KING, LORD).

154. At this time the depreciated state of the Irish currency strongly attracted the attention of Parliament, and a committee was appointed in 1804. We have, in its proper place, given some account of the proceedings of this committee (BANKING IN IRELAND), and merely notice it here as the first occasion on which a Parliamentary Committee enunciated the doctrine, that the issue of paper currency should be regulated by the foreign exchanges. It was on this occasion, too, that the doctrine which was afterwards maintained with such pertinacity in this country, was first put forward, that it was not the bank note that had fallen to a discount, but the value of gold that had risen.

155. In this year the scarcity of the silver coinage was so severely felt that the bank issued 5s. dollars to supply the want, of which 1,419,481 were put into circulation. In 1806 the loan of three millions, which was the consideration for the renewal of the Charter in 1800, became due. But the Bank was persuaded to renew it at 3 per cent. per annum until six months after the ratification of peace. In 1807 a committee was appointed to inquire into the various branches of the public expenditure, and amongst others into the payments made into the Bank of England. In the second report are some interesting details respecting the connection between the Bank and the government.

156. It was in 1806 and the following years, that the circumstances occurred, which were the origin of that great derangement of the currency which was the occasion of the appointment of the Bullion Committee. Owing to the shutting up of the continental ports by the Berlin decree, a degree of scarcity was expected in the raw material of our manufactures which came from the North of Europe. A violent speculative fever immediately commenced in these articles. Difficulties also with America, in consequence of the absurdity of our own orders in Council, raised the price of the raw produce of that country in an equal degree. At the same time, the throwing open of the markets of South America seemed to give a boundless demand for manufactured goods. Speculation, thus aggravated by so many concurring causes, swelled up in proportion to the magnitude of the markets thrown open. A complete phrenzy seized the nation. It spread from commerce to Joint Stock Companies. The infatuation of 1720 was reproduced. Joint Stock Companies of all descriptions—for canals, bridges, insurances, breweries, and multitudes of others—started up like mushrooms. At the same time the Bank of England fanned the flame of speculation to an extent far beyond the bounds of ordinary rashness. It is stated by Sir Francis Baring, in his evidence before the Bullion Committee, that since the restriction, he knew of many instances of clerks not worth £100 who had started as merchants, and had been allowed to have discount accounts of from £5,000 to £10,000, which demand, he said, was caused by the Bank, and not by the regular demands of trade, and which could not exist if the restriction was removed. The paper discounted by the Bank, which had been £2,946,500 in 1795, rose to £15,475,700 in 1809, and to £20,070,600 in 1810.

157. Along with this extravagant speculation, partly caused by it, and partly fanning it, a multitude of country banks started up in all directions, and inundated the country with their notes, exactly as had happened before 1793. In the year 1797 they had been reduced to 270; in 1808 they had increased to 600; and in 1810, when the Bullion Committee were appointed, they amounted to 721, and the quantity of paper they had put into circulation was supposed to amount to £30,000,000. At the same time the Bank of England had increased its issues to £21,000,000, a quantity declared by some of the most eminent witnesses, far to exceed the legitimate wants of the country.

158. Concurrently with these extravagant

speculations and issues of notes, the price of gold bullion rose rapidly, and the foreign exchanges fell in an equal degree, exactly the same symptoms as had been manifested in Ireland in 1804. Specie totally disappeared from circulation. J. Say says that upwards of £9,000,000 in guineas was smuggled over, and landed at the Belgian ports. Standard gold, which had been £4 per ounce since 1806, rose to £4 10s. in February, 1809, and to £4 13s. in January, 1810. Silver rose from 5s. 4d. to 5s. 7d. the ounce, and the Exchange with Hamburg, which was at 35·6 in January, 1806, gradually fell through the succeeding years till it reached 28·6 in January, 1810. Mr. Baring stated that guineas then brought 26s. and 27s. Under these circumstances, Mr. Horner, on the 1st February, 1810, moved for several returns relating to currency and exchanges. And on the 10th, the Bullion Committee were appointed.

159. As we have given a full analysis of this celebrated Report in its proper place (**BULLION REPORT**), we shall say no more about it here, further than this, that what Mr. Fox had called the fantastical doctrine that *it was not the note which had fallen, but gold that had risen*, seemed to have taken possession of the immense majority of mercantile men, and they almost all repudiated the idea that the issues of bank notes had anything to do with the foreign exchanges. Nevertheless the Committee came exactly to the same conclusion that the Committee of 1804 had done in the Irish case, that the depression of the foreign exchanges was owing to the excessive issues of bank notes, and that the latter were at a heavy discount. They laid down a series of propositions regarding the currency and monetary system (**BULLION REPORT**), which they proposed for the adoption of the House, and they said that these overissues of the bank could only be cured by a resumption of cash payments, which they recommended should take place within two years from that date. The resolutions were brought before the House in 1811, and the first was negatived by a majority of 151 to 75, the fourteen next were negatived without a division, and the last, recommending a resumption of cash payments within two years, was rejected by 180 to 45.

160. No sooner was the Bank freed by this ministerial triumph from all fears of restraint than it began to issue its notes with greater profusion than ever. In March, 1812, the market price of gold was £4 16s., or, more truly, the bank note had fallen to 16s. 3d., and Lord King issued a circular to several of his tenants reminding them that their contract was to pay a certain quantity of the legal coin of the country, and that the present paper currency was considerably depreciated. He said that in future he should require his rents to be paid in the legal gold coin of the realm, but that as his object was merely to secure the payment of the real intrinsic value of the sum stipulated by agreement, he should be willing to receive the amount in Portugal gold coin, of an equal weight with that of the stipulated number of guineas, or by an amount of bank notes sufficient to purchase the weight of standard gold requisite to discharge the rent.

161. In fact, the insane vote of the House of Commons made the value of every man's pro-

perty dependent on the will of the Bank Directors. This was fraught with the most alarming consequences to every one who had a fixed income, as whilst the price of every article of prime necessity kept pace with the depreciation of the currency, any one like a landlord having only a fixed rent to receive, was paid in a depreciated paper, while his tenants received the increased nominal prices of their commodities. That Lord King's demand was legal no one pretended to deny; but when this practical sarcasm was passed upon the resolution of the House of Commons, it excited the vehement hostility of the ministerial party, and the most unmeasured abuse was heaped upon him for incivism. Lord Stanhope brought in a bill making it a misdemeanour to make any difference between guineas and bank notes. He said that he had been informed of many instances in which a £1 note and seven shillings had been demanded for a guinea, in which he was confirmed by Lord Holland. Admirable commentary upon the resolutions carried so triumphantly in the House of Commons only two months before, and then standing on their journals, that in public estimation guineas and bank notes were equal!

162. The following harvest was extremely deficient, and the price of corn began rapidly to rise until August, 1812, when the average was 155s. in England and Wales, and some Dantzic wheat brought 180s., and oats actually touched 84s. The market or paper price of gold continued to rise till November, 1813, when it stood at £5 10s., the value of the bank note being 14s. 2d. The long continuance of high prices, partly caused by a series of bad harvests, and partly by the depreciation of the paper in which they were paid, gave rise to the belief that they would be permanent. Immense speculations began in land jobbing, and vast tracts of waste and fen land were reclaimed. Rents in most cases rose to treble what they were in 1792; all the new agricultural engagements entered into at this period were formed on the basis of these inflated prices. Landlords and tenants increased their expenditure in a like proportion, and family settlements were made on a commensurate scale. As a natural consequence, country banks greatly multiplied. In 1811 they were 728, in 1813 they had risen to 940, and the amount of their issues was supposed, on the most moderate estimate, to be about £25,000,000. After the disasters to the French armies, in the campaigns of 1813, the ports of Northern Europe were thrown open to British commerce, which naturally gave rise to enormous speculative exports and overtrading.

163. The harvest of 1813 was prodigiously abundant, so that the price of corn which in August, 1812, had been 155s., rapidly fell; and in July, 1814, was only 68s. The exporting speculations were at their height in the spring of 1814, and the prices of all such commodities rose to a very unusual height. Every branch of industry was affected by these causes, and the natural and inevitable consequence soon followed—a violent revulsion and general depression of prices of all sorts of property, which entailed such general and universal losses and failures among the agricultural, commercial, manufacturing, mining, shipping, and building interests, as had never before been paralleled. As is always the case,

the consequences of the wild speculations and engagements persons had entered into during the continuance of the fever, continued to be felt for some years afterwards. The disasters commenced in the autumn of 1814, continued with increasing severity during 1815, and reached their height in 1816-17. During these years eighty-nine country bankers became bankrupt, and the reduction of the issues of country paper was such, that in 1816, its amount was little more than half what it had been in 1814.

164. This general discredit of country bank paper, resembling what had previously occurred in 1793 and 1797, caused a demand for additional issues from the Bank of England to help to maintain public credit; and though this caused an extension of the Bank paper by upwards of £3,000,000, so great was the abstraction of country issues from circulation, (to certainly three times the amount of the Bank of England issues,) that the value of the whole currency rose, so, that while in May, 1815, the market, or paper, price of gold was £5 6s., the exchange on Hamburg 28-2, and that on Paris 19, in October, 1816, the paper price of gold had fallen to £3 18s. 6d., the exchange on Hamburg was 38, and that on Paris 26-10, and they remained with little variation at these figures till July, 1817.

165. Hence, at length, was manifested the most complete triumph of the principles of the Bullion Report. The great plethora of this worthless quantity of paper currency being removed, the value of the whole currency was raised almost to par; so near, in fact, that the smallest care and attention would have brought it quite to par; and it was indeed said, that the price of gold at this period would actually have fallen to its natural level, if the Directors of the Bank had not chosen for particular reasons to give more than they need have done.

166. And we must beg our readers to impress this fact indelibly on their minds, because a whole host of writers, whose ignorance of science can only be matched by their gross ignorance of facts, have maintained that it was the Act of 1819 which caused a violent disturbance in the relative value of the Bank Note and coin; whereas the true fact is, *that the great restoration of the value of the paper currency to par took place in 1816, from the operation of natural causes, and not from any Act of Parliament whatever.*

167. We have seen that on several previous occasions the Bank had intimated to the government their perfect readiness and ability to resume payments in cash, but had always been prevented from doing so for political reasons. In 1815, when peace was finally restored, they prepared in good faith to be ready to do so, as soon as they should be required; and during that year and 1816 they accumulated so much treasure, that, in November, 1816, they gave notice of their intention to pay all their notes dated previously to the 1st January, 1812; and in April, 1817, all their notes dated before the 1st January, 1816. When this was done there was found to be scarcely any demand upon them for gold. The nation had got so accustomed to a paper currency, that they were most unwilling to receive gold for it. Mr. Stuckey, one of the largest bankers in the West of England, said that during this partial

resumption of cash payments, it cost him nearly £100 to remit the surplus coin which accumulated upon him to London, as he could not get rid of it in the country, his customers all preferring his notes; many persons who had hoarded guineas requested as a favor to have notes in exchange.

168. In March, 1815, the restriction was prolonged to July, 1816. The bill was brought in and passed before the news of Napoleon's quitting Elba had reached England. The Act was scarcely passed when the new war broke out, which ended at Waterloo, and the expenses of the campaign made the ministry dread a monetary crisis, and the restriction was subsequently prolonged to July, 1818.

169. The partial resumption of cash payments was attended with perfect success; it caused no very great demand for gold, which continued to accumulate in the Bank till October, 1817, when it reached its maximum, being £11,914,000. In that month, the Bank gave notice that it would pay off in cash all the notes, dated before the 1st January, 1817, or renew them, at the option of the holder. In the course of 1817 a very large amount of foreign loans were contracted for; Prussia, Austria, and other continental states of lesser importance, were endeavouring to replace their depreciated paper by a metallic currency, and as money was abundant in England, a very large portion of these loans was taken up here. The effect of this began to manifest itself in April, 1817, when the exchanges with Hamburg and Paris began to give way, and the market price of gold to rise. These phenomena increased gradually throughout 1818, until in January, 1819, the price of gold was £4 3s., the exchange on Hamburg 33-8, and that on Paris 23-50. In July 1817, the new gold coinage began to be issued from the Mint in large quantities. The consequence was, a steady demand for gold set in upon the Bank, and, in pursuance of its notices, the sum of £6,756,000 was drawn out of it in gold. Just at this time the British Government reduced the rate of interest upon Exchequer Bills. The much higher rate of interest offered by continental governments caused a great demand for gold for exportation, and in the beginning of 1818 a very decided drain set in. The Bank Directors, however, determined to set all the principles of the Bullion Report ostentatiously at defiance. While this great drain was going on, they increased their advances to government from £20,000,000 to £28,000,000, and though they perfectly well knew that the demand for gold was for exportation, they took no measures whatever to reduce their issues for the purpose of checking the export. At the same time the issues of country banks had increased by two-thirds since 1816.

170. This demand for gold became more intense during 1818 and the beginning of 1819, and it became evident that the Bank would soon be exhausted, if legislative interference did not take place. Accordingly, on the 3rd February, 1819, both Houses appointed committees to inquire into the state of the Bank; and on the 5th April they reported that it was expedient to pass an act immediately to restrain the Bank from paying cash, in terms of its notices of 1816-17. An act for that purpose was passed in two days. It was stated in the report of the

Commons, that in the first six months of 1818, 125 millions of francs had been coined at the French Mint, three-fourths of which had been derived from the gold coin of this country. The Act, Statute 1819, c. 23, forbade the Bank to make any payments in gold whatever, either for fractional sums under £5, or any of their notes, during that session of Parliament. Thus the Bank was totally closed.

171. The most remarkable thing, however, connected with these investigations, was the entire revolution in opinion that had taken place in the minds of mercantile men regarding the true principles of the currency. In the committees of 1804 and 1810, the immense preponderance of commercial opinion was entirely adverse to the doctrine that the issues of paper currency had any effect on the Exchanges, or the price of bullion, or should be regulated by them. Nevertheless the reports of both committees were entirely in the teeth of the mercantile evidence. The Bullion Report had now been before the country for nine years, and had caused more public discussion, both in parliament and the press, than almost any subject whatever; and it is perfectly manifest that, if its principles were erroneous, the commercial world would only have been further strengthened in their opposition to them. But what was the result now? The overwhelming mass of commercial evidence was entirely in their favour. The current of mercantile evidence was now just as strong on their side, as it had formerly been against them. Merchant after merchant, and a long series of Bank Directors, came forward to avow their entire concurrence in them. What could be more triumphant than this? What could be more splendid testimony to their accuracy and soundness, than the fact that they had converted the immense hostile majority of the commercial world—a memorable example that statesmen and men of general education, though they should always receive statements of fact with the utmost deference from “practical” men, should never let their judgment be subjugated by the opinions of such persons, but should always assert an independent right to apply the principles of general reasoning to these phenomena, as well as to all others.

172. The old opinions of the mercantile witnesses of 1810 were now so thoroughly exploded that they had scarcely a voice in their favour. There was only one body of men who still adhered to the old opinions—the majority of the Court of Directors of the Bank of England. Notwithstanding that the Governor and Deputy-Governor, and a large number of other Directors had entirely adopted the opinions of the Bullion Report, on the occasion of some questions being sent for their consideration by the Committee of the House of Commons, the Court took the opportunity of recording publicly their disapproval of the doctrines which were now in the ascendant. On the 25th March they resolved, “That this Court cannot refrain from adverting to an opinion strongly insisted upon by some that the Bank has only to reduce its issues to obtain a favourable turn in the exchanges, and a consequent influx of the precious metals; the Court conceives it to be its duty to declare that it is unable to discover any solid foundation for such a sentiment.” Thus

we see that the very body of persons in the country who, it was, above all others, important should be guided by true principles, and upon whose action so mighty public interests rested, were the very persons who prolonged the exploded errors for years after every other sane man in the country had adopted the true views.

173. The report of the Lords' Committee contented itself with recording the opinions of the different witnesses upon the great question so long agitated, it pronounced no judgment of its own upon the soundness of the different views. It was, however, very decided in its recommendation to return to the ancient metallic standard as speedily as could be done, with a due regard to the interests of commerce. The Committee of the Commons expressed their opinion, that when the exchanges became unfavourable, and the market price of gold rose above the mint price, the only mode in which the Bank could have retained the coin in circulation, was by contracting their issues. And they said that however the exchanges might have been affected during the last and preceding year, they had no reason to apprehend the same or any other causes could continue to affect them in such a degree as to preclude the Bank of England, by a constant reference to the exchanges and the price of gold, and, when necessary, by a cautious reduction of their paper currency, from gradually approximating its value to that of gold, and ultimately re-establishing and maintaining it at par. Both Houses agreed in recommending that after the 1st February, 1820, the bank should be required to deliver gold of standard fineness in quantities of not less than sixty ounces, at £4 1s. per ounce; but that after the 1st October, 1820, the rate should be reduced to £3 19s. 6d., and after the 1st May, 1821, it should be reduced to the mint price of £3 17s. 10½d. per ounce, that this liability to pay in bullion should continue for not less than two, nor more than three years from 1st May, 1821, when payments in cash should be resumed. They also expressed their opinion that the great destruction of country bank paper in 1816-17 had been partly instrumental in reducing the price of gold, and making the exchange favourable during that period. That from the numerous circumstances affecting the value of Bank of England paper—the varying state of commercial credit and confidence—the fluctuations in the amount of country bank paper, and other reasons, no satisfactory conclusion could be drawn from the mere numerical amount of their issues at any given time.

174. It was not to be expected that the principles of the Report should command the universal assent of so large a body as the commercial world of London, many of whom, though no doubt excellent men of business, in their own particular lines, could not be expected to have much scientific knowledge of such subjects. Accordingly a petition was signed by about 500 merchants, bankers, and others, and also one by the Directors of the Bank of England. These, however, had no effect upon either House of Parliament. After debates in both Houses, which well deserve the attentive study of all students in Political Economy, the bill which was introduced into the House of Commons by Mr. Peel, the chairman of the Committee, passed both Houses, without a dissentient

voice—Mr. Canning in the House of Commons declaring, amidst loud and general cheering, that it was the unanimous determination of Parliament that the country should return as soon as possible to the ancient standard of value, in the establishment of a metallic currency; and Lord Liverpool in the Lords said that the bill had met with no opposition, and required no defence. The chief provisions of this Act, Statute 1819, c. 49, were—

I. The Acts then in force for restraining cash payments should be continued till the 1st May, 1823, when they were finally to cease.

II. That on and after the 1st February, and before the 1st October, 1820, the Bank of England should be bound, on any person presenting an amount of their notes, not less than of the value or price of sixty ounces, to pay them on demand, at the rate of £4 1s. per ounce, in standard gold bullion, stamped and assayed at the Mint.

III. That between the 1st October, 1820, and the 1st May, 1821, it should pay in a similar manner in gold bullion, at the rate of £3 19s. 6d. per ounce.

IV. That between the 1st May, 1821, and the 1st May, 1823, the rate of the gold bullion should be £3 17s. 10½d. per ounce.

V. During the first period above mentioned, it might pay in gold bullion, at any rate less than £4 1s., and not less than £3 19s. 6d. per ounce; in the second period, at any rate less than £3 19s. 6d., and not less than £3 17s. 10½d., upon giving three days' notice in the *Gazette*, and specifying the rate; but after doing so they were not to raise it again.

VI. These payments were to be made in bars, or ingots, of the weight of 60 oz. each, and the Bank might pay any fractional sum less than 40s. above that in the legal silver coin.

VII. The trade in gold bullion and coin was declared entirely free and unrestrained.

In conjunction with this Act, a most salutary measure was passed (Statute 1819, c. 76) to put a stop to the evil which the Bank directors themselves alleged had brought about the catastrophe of 1797, namely, the enormous sums the government had been in the habit of demanding from the Bank by way of advances, without any parliamentary security, which Mr. Pitt had so grossly abused. By this Act the Bank was forbidden to make any advances of any description, without the express and distinct authority of Parliament for that purpose first had and obtained.

175. Thus we must beg our readers carefully to observe the cautious and deliberate manner which Parliament adopted to bring about a permanent restoration of the true measure of value, a metallic currency. They even sanctioned a species of bankruptcy for a reasonable period, in order not to make the change too violent. And yet numbers of writers and speakers at the present day declaim against the violence and injustice of the Act of 1819, as if it had caused a violent and abrupt reduction in the value of the Bank Note. Such statements can only proceed from the most shameful ignorance of the facts of the case, or from the most shameful and wilful dishonesty. The abrupt and violent restoration of the Paper Currency to par took place in 1816, and not in 1819, as we have already shewn, and was not produced by any law whatever. The

Bank resumed partial payments of its currency in 1816, and was rapidly proceeding to a total resumption of cash payments, when the monetary disturbances of 1818 took place; and it was only the mismanagement of the directors, and their deliberate violation of the true principles of monetary science, that brought about the stoppage of 1819. And ultimately the Bank resumed cash payments in full, of its own accord, two years before the time limited by law.

176. This great Act for the preservation of the national good faith, the restoration of the measure of value, was accomplished with the unanimous consent of every man of sound judgment. But, unfortunately, no sooner had it become law, than an unusually severe and long continued disturbance in the ordinary proportion of supply and demand in a great variety of productions took place. The violent fluctuations in prices which necessarily followed this great derangement, caused much public distress, and afforded an opportunity for the antagonists of the Act of 1819 to acquire such strength, as to induce the government to tamper with the Act, before it came into full effect.

177. The utter prostration of all the great producing interests of the country in 1815-16, had caused such severe distress, as to diminish the consuming powers of the people to an enormous extent. The importation of the great articles of consumption in 1816, were in most cases not half what they had been in 1814. In 1817, when the general prosperity was reviving, the shortness of the supply caused a very general and rapid rise in the prices of all commodities. The inevitable consequence followed, speculation began to revive again, and was much fostered in 1818, by an expected dearth of provisions. The crops were supposed to be irretrievably damaged, and as imported produce was remarkably low, the prices of all sorts of farming produce rose to an extravagant height. The home crop of wheat turned out much better than was expected, and great importations of that cereal took place; but all other sorts of farming produce mounted up to a great height, barley being at 63s. 6d., oats at 35s., beans at 76s., and peas at 79s., in December, 1818. These extravagant prices of course attracted enormous importations at the close of 1818. The imports of colonial and foreign produce, retained for home consumption, were more than double what they were in 1816. During the winter, the enormous importations of foreign produce arrested the rise in prices, and as they further continued, a decided fall began to manifest itself, which was in progress when the Act for the restoration of cash payments passed.

178. The usual consequences followed these extravagant importations. Importers, trusting to the prices of 1817, had given orders to the growers based upon these prices, and when the crops came to be brought to market, the price had given way. Failures accordingly were numerous in 1819, both in England and America, the necessary consequence of a transition from high prices caused by scarcity, to low prices arising from excess of supply. Towards the autumn of that year commercial credit had revived. The great importations of wheat in 1818 somewhat reduced the price in 1819, but it stood at 75s. in August, and the average of the whole year was 72s. This

price continued, with a few fluctuations, till August, 1820, and at that time wheat was still at 72s. A decided and unanswerable proof that the discussions in Parliament, and the Act for the resumption of cash payments, had no effect at all on the price of corn. Although the Bank was permitted to pay its notes in gold at the rate of £4 1s. per ounce, yet they were actually at par, as the market price of gold fell to £3 17s. 10½d. in August, 1819, and continued at that rate till June, 1822, when it fell to £3 17s. 6d.

179. The price of wheat in July, 1820, was still 72s., but the weather having been most propitious, the harvest was of most extraordinary abundance and of excellent quality. And even its unprecedented exuberance did not become fully known till two or three years afterwards, when it was not yet exhausted. The best authorities calculated that the quantity of the crop of 1820 was one-third above the average. In July, 1821, wheat had fallen to 51s. from 72s. in August, 1819. In September it had risen to 62s., but in consequence of the wet weather, though the quantity was very large, the quality was very bad. In consequence of the enormous unexhausted stock of 1820, wheat fell to 50s. at the end of 1821, and to 42s. in August, 1822. The harvest of 1822 was remarkably good, both in quantity and quality, and was got in early, long before the preceding crops had been consumed. Besides this, the importations from Ireland were on an unprecedented scale. In 1817 corn was obliged to be exported to Ireland, in 1820 and 1821 Ireland exported to England upwards of 4,000,000 quarters of grain of all sorts. The natural and inevitable consequence of this was an immense and ruinous fall in the prices of all agricultural produce. Wheat fell to 38s. at the end of 1822.

180. The accumulation of treasure became so rapid in the vaults of the Bank in 1820, that early in 1821, the directors felt themselves in a position to resume cash payments, and an Act was passed to permit them to do so on the 1st May, 1821, instead of in 1823. By this time the Government had repaid £10,000,000 of the debt it owed to the Bank, which all the witnesses agreed was a necessary preliminary to enable the directors to contract their own issues. The Statute 1821 c. 26, enacted that the Bank might resume payments in gold coin on the 1st May, 1821. That persons offered to be paid in coin should not have the right to demand ingots; but if the Bank did not offer to pay in coin, the right to demand ingots should continue. The last impediments to the export of bullion were swept away. The Bank was bound to exchange its larger notes for any one who demanded it for £1 notes or gold coin, but they had the option of paying in notes or gold.

181. The extravagant height to which the combined effects of an unusual and long-continued scarcity and the greatly depreciated currency in which payments were made in 1811 and 1812, had produced the most extravagant speculations in farming. Barren wastes were reclaimed at an enormous expense, which never could have been repaid, except by maintaining corn at famine prices. Rents and debts had advanced in a similar proportion, and all classes of agriculturists, farmers and landlords, had adjusted their

expenditure according to the new scale of prices, which they expected would endure. Family settlements and encumbrances were calculated on the same basis. Immediately after the peace, the great fall in the price of all sorts of agricultural produce, both from greater abundance and the destruction of the rotten country paper currency, threatened all persons connected with the "landed interest" with general ruin, and after a considerable struggle the corn bill of 1815 was passed, the intended and expected effect of which was to prevent wheat ever falling below 80s. a quarter. Buoyed up with delusive hopes, and firmly believing that the Act had for ever nailed up wheat to 80s. a quarter, the farmers received a fresh stimulus to speculation, and vast sums were laid out in further extending the cultivation of barren wastes. However, the circumstances we have already detailed disappointed all these calculations, and wheat stood at 38s. at the end of 1822, in defiance of the Act which said it ought to be at 80s.

182. The opponents of the Act of 1819 did not fail to turn the undoubted distress of the agricultural classes to their own purposes, and they commenced an attack on the currency law on April 9, 1821. This attack proved a complete failure, being rejected by a majority of 141 to 27. As prices continued to fall during that year, the distress continued to increase; and early in 1822 a Committee of the House of Commons was appointed to report upon the subject. They presented their report on the 1st April, but it did not contain a word imputing the low state of prices to anything connected with the currency. They attributed it to the unprecedented abundance of agricultural produce, and proposed plans for affording the farmers and others relief by temporary advances of Exchequer Bills, until the glut in the market had diminished. In the debate that followed, Lord Londonderry ridiculed the idea that the currency had anything to do with the question, and said members had only wasted precious time in bringing it forward. But he declared that he entered his most solemn protest against the purpose of these members to induce Parliament to commit the most flagrant deviation from sound policy and common honesty—a breach of faith towards the public creditor. Could a British House of Commons sanction such a measure, it would relieve no class of the community; but it would overwhelm all classes with ruin. Were it possible for them to be dishonest and base enough to listen to a project of national bankruptcy, the result must be most calamitous. If a Parliament could be found so degenerate, and a people so destitute of honour and common honesty, as not to start at the idea of such an abandonment of principle, the most sordid calculation would forbid the adoption of such a measure.

183. The £1 note issues of the country bankers in England had been suppressed by Statute 1777, c. 30, but in 1797 they were again permitted, and by various Acts of Parliament this permission was continued till two years after the resumption of cash payments by the Bank of England. By the operation of these several Acts, they must have been withdrawn in 1825. The distress, however, which was attributed by so numerous and powerful a party to the contraction

of the currency, was employed to induce ministers to relax this restriction, and country bankers were permitted to continue their £1 notes till the expiry of the Bank Charter in 1833. In order to improve the quality of the country bank notes, the Government attempted to enter into negotiations with the Bank of England to permit joint stock banks to be formed at a distance of sixty-five miles from London. The Government was satisfied that if joint stock banks on the Scotch system could be formed, it would add much to the stability of public credit. Lord Londonderry pronounced a warm eulogium upon the Scotch banks, and said that it was the wish of the ministry that a similar system should be introduced into England. The bribe to the Bank of England to consent to this arrangement, was an extension of their charter for ten years, but the negotiation failed.

184. The opponents of the Act of 1819 were encouraged to make an attack upon it by the unquestionable public distress that existed. On the 11th June, 1822, Mr. Western moved for a committee to inquire into the effect of the Act upon the general interests of the empire. The burden of his speech was, that all the distress of the country was due to the Act of 1819, and to that only; which he said had made a violent contraction in our currency at once. This assertion, which was the main pillar of his argument, is demolished by the simple fact that the great contraction of the currency, and the restoration of the note to par, took place in 1816. He moreover assumed that the currency had been depreciated ever since the Restriction Act of 1797. Mr. Huskisson immediately followed in a speech demolishing the whole of Mr. Western's sophistries one by one, and drawing a close parallel between the state of the currency in 1696, and at that time; and he concluded by moving the same resolution that Mr. Montague had done in 1696, "That this House will not alter the standard of gold or silver in fineness, weight, or denomination." After a debate of two nights, Mr. Western's motion was rejected by a majority of 194 to 30, and Mr. Huskisson's amendment agreed to.

185. While this party clamoured so loudly that all the distress of the country was owing to the currency Act of 1819, there was an unanswerable argument to confute them, that the prices of agricultural produce were equally depressed all over the continent of Europe. The fluctuations, indeed, on the continent were more violent even than in England. At Vienna, wheat, which was at 114s. in March, 1817, fell in September, 1819, to 19s. 6d.; at Munich, wheat fell from 151s. in September, 1817, to 24s. 6d. in September, 1820. The same phenomena were observed in Italy. Similar, but less extensive, fluctuations took place at Lisbon. What could the Act of 1819 possibly have to do with these places? The speech from the throne in France very properly attributed the low prices to the enormous abundance of production.

186. But not only is it an absolutely certain historical fact that the Act of 1819 had not the remotest connection with the low prices of 1822, but it is proved by most overwhelming evidence, *that it caused no contraction of the currency at all.* Mr. Turner, a director of the Bank, states, "With regard to the effect of Mr. Peel's Bill on the Bank of England, I can state from having

been in the direction during the last two years, that it has been altogether a dead letter. It has neither accelerated nor retarded the return to cash payments." And Mr. Tooke shews most conclusively that the amount of the currency so far as it consisted of Bank of England notes and coins, was much larger in 1822 than in 1819. That this Act, then, caused any contraction of the currency is a statement most contrary to truth. Its only effect was, what Parliament had over and over again pledged itself to do, to fix a time for the return to cash payments, and such a return to cash payments would, by its own natural operation, prevent the extravagant issues which the Bank had made during the restriction, which depreciated the note 30 per cent., and robbed every creditor of one-third part of his property. The Act of 1819 merely restored the Bank to its condition before 1797, and it became subject to the same unerring laws of nature, as its directors had confessed it felt before the restriction.

187. By the beginning of 1823, the very inferior crop of 1821 had been chiefly consumed, and the crop of 1822 being of far superior quality, prices began slowly to rise, and the spring of 1823 proving very backward, prices rose so rapidly that in June wheat stood at 62s. 5d.; at the end of the year they were still 37 per cent. below the "remunerative" 80s. which Parliament held out to farmers as the price which should be secured to them. It is a favorite theory with some persons that the rise of prices in 1823 was owing to the extension of country bank issues, in consequence of the Act of 1822 prolonging the term of their existence. Such a notion, however, is decidedly negated by the evidence of Mr. Burgess, the secretary of the Committee of Country Bankers, before the Committee of 1832, where it is shewn that the issues in 1823 were rather lower than in 1822, and nearly 12 per cent. lower than in 1818—(*Report*, p. 414). Mr. Tooke also shews that during 1823, while the price of wheat was rising, the prices of most other commodities were falling, from which circumstance he very conclusively pronounces that the idea that the variation of the currency had anything to do with prices in those years is utterly unfounded.

188. The continued depression of the prices of agricultural produce, so much below what had been expected, created no doubt much distress among those persons who were hampered with obligations they had entered into upon the scale of 1811 and 1812, and several petitions were presented to both Houses of Parliament complaining of it. Mr. Western, not satisfied with the great rebuff he had met with in 1822, when the distress was far more severe, again endeavoured to induce Parliament to disturb the settlement of 1819. The motion, however, was rejected by a majority of 96 to 27, and was the last attempt to tamper with the measure of value.

189. Prices rose considerably in 1824, the harvest of 1823 being deficient both in quality and quantity, and wheat stood at 78s., and continued so at the end of the year. The Bank had been for some years accumulating treasure to meet the anticipated deficiency of the country issues expected to follow the suppression of the £1 notes. When the unhappy change in the policy of the government took place, this great amount of bullion was rendered comparatively

useless, and the country banks began to extend their issues in 1824, and in 1825 they were beyond what they were in 1818. In January, 1824, the bullion in the Bank amounted to £14,200,000. During the preceding year, a readjustment of rents, to meet the altered state of prices, had taken place, and the old stocks having been gradually worked off, the energy of the people began to revive. The enormous amount of cash in the Bank, for which there was no immediate use, enabled the Government to carry through a great financial operation, the reduction of the interest upon nearly a quarter of the National Debt. The Navy 5 per cents. were reduced to 4 per cent., and the 4 per cent. stock to 3½. This vast operation had a very considerable influence in curtailing the incomes of many persons who could ill afford it, to a very inconvenient extent, and prepared them to look out for more profitable investments for their money. Notwithstanding the unhappy and severe distress of the agricultural portion of the community, Mr. Tooke says that the trading and manufacturing interests had never before been in a more regular, sound, and satisfactory state, than in the interval from 1821 to 1824. At the close of the session of 1823, the king congratulated Parliament on the flourishing condition of all branches of our commerce and manufactures, and the gradual abatement of agricultural distress.

190. At the close of 1824 the seeds of the disasters which ensued in the end of 1825 were sown. Towards the end of that year it became evident that the supply of some of the leading articles of consumption was falling short. A spirit of speculation sprung up, and as in all similar cases, a few early purchases, which were successful, induced extensive imitation; and at the end of 1824, and beginning of 1825, this had amounted to positive infection, numbers of persons being induced to go out of their own line of business to speculate in articles with which they had no concern whatever, but induced by the representations of their brokers to do so, in the hopes of realizing great and immediate gains. The opening of the markets of the South American republics and Mexico, in consequence of the achievement of their independence, opened a boundless field for speculation. Visions of boundless wealth dazzled the eyes of the public, from the working of the gold and silver mines with British capital. The long struggles for independence had inspired the British people with much sympathy for the juvenile republic, and when they wanted to borrow money the British were only too eager to lend it. It is alleged that £150,000,000 of British capital was sunk in different ways in Mexico and South America.

191. The king's speech, at the opening of the session of 1825, declared the utmost gratification at the continuance and progressive increase of the public prosperity. The speech of the mover of the address was exactly in the same laudatory strain. And yet no sooner was the debate on the address ended, than the Lord Chancellor called the attention of the House to the dangerous extent to which the mania for joint stock companies had gone, and said that he would move for leave to bring in a bill to restrain the system. Within seven weeks afterwards, Lord Lauderdale called the attention of the House to the fury

for joint stock companies, which had taken possession of the people, and said that the schemes already subscribed for amounted to £200,000,000.

192. Now, what was the conduct of the Bank of England during this period? The bullion which stood above £14,000,000 in January, 1824, was reduced to £11,600,000 in October, 1824. The exchange on Paris had been falling ever since the close of 1823. The last time it was above par was in June, and since then the fall had been continuous. The decrease in bullion had been steady, uniform, and rapid ever since March. Now, when it was known that immense sums were leaving the country, and the exchange falling lower, what did the Bank do? It *increased* its issues. During the month of October, 1824, they were increased £2,300,000. When every consideration of common sense and prudence demanded a rapid *contraction*, when the speculative fever was plainly declared, instead of doing what they could to check it they added fuel to the flames. The directors set all the principles of the Bullion Report at utter defiance, and of course the drain upon them proceeded with increased rapidity. In April, 1825, the bullion was diminished by upwards of £4,000,000, and their issues were £3,600,000 higher when they had only £6,650,000 of bullion, than when they had £14,000,000.

193. The speculative fever was at its height in the first four months of 1825, when it came to an end in the natural course of things. Vast numbers of persons who had embarked in these wild schemes, with the hope of selling out before the inevitable crash came, were now called upon for their subscriptions. Vast quantities of capital having been already absorbed, had the inevitable effect of raising the rate of interest. Successive calls compelled the weaker holders to realize, and while the demand for ready money was immediate and pressing, the prospect of returns was distant and uncertain. Accordingly, after May and June, the decline was rapid. The South American mines and loans proved almost total losses. The increase of commodities which speculation had caused rapidly sent down prices. The obligations of the speculators now became due, and the sale of the commodities had to be forced to meet them. Universal discredit now succeeded, goods became unsaleable, so that stocks which are usually held in anticipation of demand, were wholly unavailable to meet the pecuniary engagements of the holders. Merchants who had accepted bills for only half the value of the goods consigned to them, were unable to realize even that half, or even obtain advances on security of the bills of lading, and the advances already made were peremptorily called in. The usury laws, which limited interest to 5 per cent., greatly aggravated the distress. Nobody would lend money at 5 per cent. when its real value was so much greater, hence numbers, who would gladly have paid 8 or 10 per cent. interest, were obliged to sell goods at a difference of 30 per cent. for cash compared with the price for time.

194. The bankers in the country had followed exactly in the steps of the Bank of England. While the fever was raging, they had increased their issues and liabilities by speculative advances on commodities. The persons to whom these advances had been made, had no means of repay-

ing them, but the "promises to pay" the bankers had lent them, still remained in circulation, and must be met. The bankers foresaw the coming storm, and endeavoured to provide funds to meet it. The Bank of England itself had its eyes opened to the suicidal career it was following in May, and then endeavoured violently to contract its issues. This sudden change of policy only aggravated the general feeling of discredit. During the Autumn everything portended the approach of the impending catastrophe. At length the storm burst in December, and the week from Monday the 12th to Saturday the 17th was the height of the crisis. As we have fully considered this great crisis, along with the other crises (CRISIS, COMMERCIAL) we shall say no more about it here, except this, that the Bank having persevered in the policy of the most stern and severe restriction up till Wednesday night, and having destroyed several houses of first rate magnitude by that conduct, thereby flying right in the face of the Bullion Report, on that day totally reversed their policy, and during the remainder of the week discounted with the utmost profusion, and by that means, and that means only, acting strictly in accordance with the principles of the Bullion Report, saved themselves and the whole public credit of Great Britain. Between Wednesday the 14th and Saturday the 17th, the Bank issued upwards of £5,000,000 of notes.

195. The waves of discredit were of course propagated through the country, and during the following week the demand still continued great from the London bankers for their country correspondents. During this time, some of the directors remembered that there was a chest of their £1 notes which had never been used, and it occurred to them that these notes might be used to stay the panic in the country districts, and the discredit of the country notes. This idea being communicated to the London bankers, they greatly approved of it, and the sanction of the Government was asked for the experiment. The Government agreed, and the notes were sent off to the country bankers without delay, and produced instantaneous relief. By the 24th December the panic was completely allayed all over the country, and the amount of the £1 notes issued by the Bank was under £500,000. And by the beginning of 1826, the credit of the banking world was completely restored (CRISIS, COMMERCIAL).

196. When the causes of this terrible calamity came to be discussed, there were not wanting many who laid the whole blame upon the excessive issues of the Bank, as well as those of the country banks. But though it is indisputable that the Bank acted on the most unsound principles in not contracting its issues when the great drain of bullion for exportation was going on, it is a mere delusion for men to attribute the consequences of their own wild and extravagant mania to the Bank of England, or to any banks. The errors of all the banks put together were trivial when compared to the outbreaks of speculative insanity which seized upon all classes. It was not the issues of some bank notes, more or less, which originated the calamity, but the insatiable thirst of growing suddenly rich that seized upon so many persons, and led them to

embark in the maddest schemes, totally out of their line of business. Was it the issue of bank notes that led a respectable bookselling firm to embark £100,000 in a speculation in hops?

197. The worthless character of a great portion of the country bank paper had greatly aggravated the calamity. The Government and the Bank, at last learning wisdom from these repeated convulsions, which seemed to recur periodically, became sensible that it was imperatively necessary to provide a currency of a more solid description for the country, and that the frightful evils of the monopoly of the Bank of England must come to an end. Parliament met on the 3rd February, 1826, and six paragraphs of the speech from the throne were occupied with the commercial catastrophe, and it said that part of the remedies to be applied consisted in placing the currency and circulating credit of the country on a more firm foundation. Lord King severely blamed the constitution and management of the Bank. Lord Liverpool chiefly blamed the excessive issues of the country banks, and said that the small notes must be gradually withdrawn, and a metallic currency substituted. He said that he was perfectly satisfied, and had entertained the conviction for years, that the country had grown too large, and that its concerns had become too extensive, to allow of the exclusive privilege of the Bank of England. Its privilege had operated in a most extraordinary, and, as he thought, unfortunate manner for the country. Any small tradesman—a cheesemonger, or a butcher, or a shoemaker—might open a country bank, but a set of persons with a fortune sufficient to carry on the concern with security, were not permitted to do so.

198. The ministry took upon themselves to prohibit any more stamps being issued to the country banks for £1 and £2 notes. The Chancellor of the Exchequer said that those notes were to be deprecated as an infringement of the Act of 1819, which, no man could deny was passed, if ever any Act was, with the unanimous approbation of all the parties of which Parliament was composed, an Act which had been solemnly resolved upon as the only measure which could enable the country to meet any future danger, by placing the circulating medium on a permanent and stable footing. No man could insinuate that that Act was not the result of the deliberate conviction of almost every individual of every party in that house. He always had regretted, and he still regretted, the step taken by Parliament in 1822, which permitted them. The intention of the government was, therefore, to suppress them as soon as possible in England, and subsequently in Scotland and Ireland. He moved a resolution that no fresh notes were to be issued by country bankers in England under £5, and that those printed before the 5th February, 1826, might be issued, re-issued, and circulated until the 5th April, 1829, and no longer.

199. The opinions expressed in Parliament and the country were of course most conflicting as to the causes of this great catastrophe, but the great preponderance of opinion was adverse to the small note issues. Mr. Baring, who defended the country bankers from the accusations levelled against them, said that their small notes were bad as a permanent system, and they ought to be

called in. Even although they might sometimes be of almost indispensable use to the country, still, if the misery which had been caused by their use among the poorer classes were taken into consideration, it was a sufficient reason why the nuisance should be abated; and it was his opinion that the House had not got rid of this deluge of paper at the time when it had the power to do so, and that it had not resisted, as it ought to have resisted, the importunity of the country bankers. That these small notes should be abolished as soon as practicable.

200. Mr. Huskisson bestowed the warmest commendation on the conduct of the Bank during the crisis, which he said had saved the country from a general convulsion, and which had had the particular recommendation of the Premier and Chancellor of the Exchequer. He and all the other influential speakers earnestly advised the total suppression of the small notes, and the proposition was carried by a majority of 222 to 39, and a motion to continue the small notes of the Bank of England was rejected by 66 to 7.

201. The chief provisions of the Act, Statute 1826, c. 6, for prohibiting small notes in England, are as follows:

I. The Act repealing the Act, Statute 1777, c. 30, which prohibited promissory notes and bills under 20s. was repealed, thereby reviving the former Act; but all notes of private bankers stamped before the 5th February, 1826, or of the Bank of England stamped before the 10th October, 1826, were exempted from its operation, and were permitted to be issued, re-issued, and negotiated until the 5th April, 1829.

II. Any person after that date, making, issuing, signing, or re-issuing any note or bill under £5, was subject to a penalty of £20.

III. Any person who published, uttered, or negotiated any promissory or other note, or any negotiable or transferable bill, draft, or undertaking in writing for the payment of 20s., or above that sum, and less than £5, or on which such sum should be unpaid, should forfeit the sum of £20.

IV. These penalties were not to attach to any person drawing a cheque on his banker for his own use.

V. All promissory notes under £20, made payable to bearer on demand, were to be made payable at the bank, or places where they were issued, and as many more places as the issuer pleased.

202. When the government determined on suppressing the small note issues in England, they said it was their intention to extend the measure in a short time to Scotland and Ireland. However much Scotland may have suffered from commercial overtrading, as every commercial country must occasionally do, no *banking* panic had ever occurred, such as those which had so frequently desolated England. As soon as the ministerial intentions were known in Scotland, a great ferment was excited. Sir Walter Scott published three letters on the subject, under the pseudonym of "Malachi Malagrowther," which tended much to fan the public enthusiasm, and such an opposition was organized, that the ministry were obliged to consent to appoint committees of both Houses on the subject. These committees sat during the Spring of 1826, and

investigated the whole subject of Scotch banking, at great length, which had been very little understood in England before that time, and the result was so eminently favorable to the Scotch banking system, that the ministry abandoned their intention of attempting to alter it.

203. The year 1827 is memorable as the era when the principles of the Bullion Report were at length acknowledged to be true, and professedly adopted by the Bank. Mr. Ward stated in 1832, that there was not a single person in the Bank, but who admitted that its issues should be regulated by the foreign exchanges and the bullion market, or disposed to act in opposition to it. That in 1819, the Directors had forwarded a resolution to the House of Commons, denying that the exchanges were to be regarded in regulating the issues. Subsequently, however, to that year, opinions became changed, and they found the merits of the case such as they really were. He himself had always been convinced of the truth of Mr. Horner's principle, and from being connected with the exchanges, had many opportunities of observing the practical truth of it. The Bank Directors, however, were not convinced of it, because they found in practice, that the exchanges did not follow the issues of the bank. But the truth was, that they neglected to consider the country issues, and it was only in 1819 that they obtained a correct account of the issues of country banks. When that was got it was found that, taking the Bank and the country issues together, the principle was shown to be quite correct. The observation of these facts had gradually convinced the directors, and in 1827, he thought the court ripe for expunging the resolution of 1819, and it had accordingly been done. And, in 1832, there was not a single director who disputed its truth. A memorable warning that it is not always those who are engaged in the practice of a business, who are always the best judges of its scientific principles; and a great encouragement to those, who, being firmly and surely convinced, that they are the advocates of true principles however much they may be neglected and run down for a while, to persevere in the undoubted belief that the triumph of true principles though long delayed, is ultimately certain.

204. Although the Act of 1777 had forbidden notes under £5 to be issued in England, it did not prohibit the circulation of the Scotch £1 notes in England, and they had always circulated in the districts adjacent to Scotland, and even as far south as York. When the English £1 notes were suppressed, it seemed naturally to follow that the circulation of the Scotch notes in England should be forbidden. But the districts in which they had always circulated were as unanimous as Scotland itself against the measure. In 1828 the ministry brought in a bill to restrain the circulation of Scotch bank notes in England. Sir James Graham presented a petition from the borderers deprecating in the most earnest terms the withdrawal of the Scotch notes to which they had been so long accustomed. For seventy years, they said, they had possessed the advantage it was now sought to deprive them of—the advantage of the Scotch currency. Seven-eighths of the rents of estates were paid in the paper currency of

Scotland, and no loss had been sustained in consequence of it. After a debate of two nights the motion was carried by 154 to 45. The Act, Statute 1828, c. 65, provided that after the 5th April, 1829, no corporation or person whatever should publish, utter, negotiate, or transfer in any part of England, any promissory note, draft, engagement, or undertaking in writing, payable to bearer on demand, for less than £5, or upon which less than £5 remained unpaid, which should have been made or issued, or purport to have been made or issued in Scotland or Ireland, or elsewhere out of England, under a penalty of not less than £5 or more than £10. The same exemption as to cheques as in the former Act.

205. In 1832, during the crisis of the Reform Bill, a run upon the Bank took place, which lasted for about a fortnight, but as it was merely from political feeling in London, and did not extend into the country, no serious result ensued.

206. The Bank charter expired at the end of one year's notice, to be given after the 1st August, 1832, and this time the Bank had done no such services to government as to be in a position to demand from it a renewal of its monopoly, several years before it expired. Moreover, these exclusive privileges, as Lord Liverpool said in 1825, were now out of fashion. Many great monopolies were now on the eve of breaking up, and the public mind was more roused and enlightened on the subject of banking, from the discussion caused about the severe distress of 1825. Before taking any steps towards the renewal of the charter, the Government determined to have an inquiry before a secret committee of the House of Commons, which was appointed on the 22nd May, 1832, and sat for some months, and did not make any report till the end of the session. The inquiry was extremely incomplete. Many of the most interesting subjects connected with it were scarcely touched upon. At the close of the session, it reported the evidence to the House as far as it had gone. It was expected that a new committee would have been appointed in the new Parliament to continue the inquiry, but the Government in the meantime made up their minds as to the changes they intended to make in the Bank monopoly, and dispensed with any further inquiry.

207. Although the inquiry was left in a very incomplete state, as to many branches of the subject, the evidence given embraced many points of interest. The most important were—the rules adopted by the Bank for regulating their issues; the expediency, or the contrary, of publishing their accounts; the expediency, or the contrary, of establishing Joint Stock Banks; or of having one or more Banks of Issue in the Metropolis; the causes of the panic of 1825, and the action of the Bank during that period; the advantages, or the contrary, of making bank notes legal tender; and the effects of the usury laws on commerce.

208. The great truths regarding the regulation of a paper currency, which had been approved of by the Bullion Committee, were now unanimously recognized by the directors, and Mr. Horaley Palmer, the governor of the Bank, being asked by what principle in ordinary times the Bank was guided in the regulation of its issues, said that in a period of a full currency, and consequently with a par of exchange, the Bank considered it desirable to invest two-thirds of its

liabilities of all sorts in interest-bearing securities, and one-third in bullion. The circulation of the country being then regulated by the action of the Foreign Exchanges, the Bank was extremely desirous to avoid using any active power of regulating the circulation, but to leave that entirely in the hands of the public. The action of the public was fully sufficient to rectify the exchanges, without any forced action on the part of the Bank, in buying or selling securities. He thought it desirable to keep the securities very nearly at the same amount, because then the public could always act for themselves in returning notes for bullion for exportation when the exchanges were unfavorable; and if there was a great influx of gold, the Bank could always re-assume its proportion by transferring part of the bullion into securities. He considered that the discount of private paper was one of the worst means which the Bank could adopt for regulating its notes, as it tended to produce a very prejudicial extension of them. He condemned strongly the practice of the Bank during the restriction with respect to the extensive discounts of mercantile paper at 5 per cent. when the market rate was much higher, which necessarily led to an excessive issue. In this opinion Mr. Palmer was undoubtedly right, but he forgot that the usury laws prevented the Bank charging more than 5 per cent.

209. The great majority of the witnesses were in favor of the publication of the Bank accounts, as tending to inspire greater public confidence than the mystery in which they were then enveloped, and also as acting as a check upon the directors, themselves. Almost all the witnesses were against joint stock banks in London, as they would tend to injure the private bankers. Considering the ideas of the age when class interests were supreme, we need not be surprised at this unanimity of feeling; nor that it rather escaped the attention of the witnesses, that it was not the interests of the private bankers, however respectable they were, that was the paramount consideration, *but what was best for the public good*. And still more decidedly were the witnesses opposed, with scarcely an exception, to the establishment of any new joint stock banks of issue in London. There was a very prevalent feeling that Bank of England notes should be made legal tender, as a means of allaying a drain on the country bankers for gold during a panic.

210. It was at this time we may date the first prominent appearance of the great modern heresy that bills of exchange and cheques form no part of the circulating medium or currency. As this unhappy doctrine, however, was much more emphatically pronounced a few years later, we may defer any further mention of it till then.

211. The harvest of 1832 was unusually abundant, which caused a great depression in the price of all sorts of agricultural produce, towards the end of that year, followed, of course, by "agricultural distress." This was brought before the notice of Parliament in the speech from the throne at the opening of the session of 1833, and a committee was appointed to inquire into it. This distress afforded the irreconcilable enemies of the Act of 1819 another opportunity of attacking it. Mr. Attwood moved for a committee to inquire how far the present distress

was connected with the monetary system. Lord Althorp immediately met the motion by an amendment, that any change in the monetary system which would have the effect of lowering the standard of value, was inexpedient, which, after a debate of three nights, was carried by a majority of 304 to 49.

212. On the 31st May, 1833, Lord Althorp moved a series of resolutions for the renewal of the Bank Charter, one of which was, that so long as the Bank was bound to pay its notes in gold, bank notes should be declared legal tender, except by the Bank itself. Several members wished for further delay to consider the resolutions, as the session was nearly at an end; but Sir Robert Peel was decidedly of opinion that the House would be abandoning its duty if it consented to postpone the question. He was of opinion that it was desirable to continue the privileges of the Bank, and that there should be but one bank of issue in the metropolis, in order that it might exercise an undivided control over the issue of paper, and give facility to commerce in times of difficulty and alarm, which it could not give with the same effect if it were subject to the rivalry of another establishment. He resisted at great length the proposition for making bank notes legal tender, as a departure from the principle of the Act of 1819, and the true principles that should govern a paper currency. It was decided by a majority of 316 to 83 to proceed with the consideration of the resolutions. The plan of making bank notes legal tender gave rise to much difference of opinion, but was carried by 214 to 156.

213. We have already seen that the public had attempted at various times to form rival banking companies to the Bank of England, and in 1709 and 1742 the Bank Acts had been framed to stop up various loopholes which had been successively discovered. In 1742 the phraseology used had been supposed to be quite effectual for that purpose. At that time the custom of giving notes payable to bearer on demand to their customers in return for deposits, or in the discount of bills, was considered so essentially the fundamental idea of banking, that to prohibit the issue of these notes was deemed an effectual bar upon carrying on the business of banking. But in process of time—about 1772—the London bankers discontinued issuing notes payable to bearer on demand, and adopted the modern system of creating credit by means of entries and cheques. The Act of 1742 was considered to be so effectual a bar upon establishing banking companies in general, that for a long time it escaped public observation, that the change in the method of doing business enabled banking companies to elude the wording of the Act of 1742. In 1796, when in consequence of the restrictive measures of the Bank of England, much distress was felt in London from the want of a circulating medium, an association of merchants and bankers was formed for the purpose of providing a circulating medium, which should not infringe the privileges of the Bank; the question was considered by them, in what the Bank's privilege of exclusive "banking" did consist, and they determined, "The privilege of exclusive banking enjoyed by the Governor and Company of the Bank of England, as defined by the Acts of Parliament under

which they enjoy it, seems to consist in the power of borrowing, owing, or taking up money on their bills or notes payable on demand." About the year 1822, some writers detected this flaw in the monopoly of the bank, and maintained that a joint stock bank of deposit was no infringement of the charter, and that such banks might be formed, and carry on a very successful business, without issuing notes at all, but by merely following the practice of the London bankers, and adopting cheques. Though this idea was a good deal discussed in pamphlets at that period, no practical result ensued.

214. It is somewhat remarkable that the discovery should have been allowed to lie unfruitful for so long a period. When the Government first entered into negotiations with the Bank in 1833, concerning the terms of the renewal of the charter, they, as well as the whole mercantile community, were persuaded that the monopoly forbade banks of any description whatever, with more than six partners, being formed. In the course of the negotiation, however, this was brought under the notice of the Government, who took the opinion of their law officers on so important a point. The opinion of the crown lawyers was, that the clause did not prohibit joint stock banks of deposit being formed. The directors and proprietors of the Bank were much disturbed at finding this flaw in their monopoly, and requested the Government to have it rectified; but Lord Althorp said that the bargain was that their privileges should not be diminished, but he would not agree to any extension of them. In order to remove all doubts upon the subject, the Solicitor-General brought up a clause by way of rider, declaring the right to form such banks. He said that the basis of the contract with the Bank was, that they were to enjoy whatever monopoly they already possessed, but nothing beyond it. He had examined the case with the utmost care, and there was no pretence for saying that such banks were an encroachment upon the monopoly of the Bank. The Bank, as originally founded, was a *bank of issue*, and the monopoly first granted in 1697, must be held to refer only to banks *ejusdem generis*. Such had been the uniform language of all the subsequent Acts. The clause upon which their monopoly rested was strictly confined to the issue of paper money. Banks of deposit were lawful at common law, and it rested with those who said they were forbidden, to point out the Act which prohibited them.

215. The chief provisions of the Act were as follows, Statute 1833, c. 98:—

I. The Bank was continued as a Corporation, with such exclusive privilege of banking as was given by the Act, for a certain time, and on certain conditions, during which time no society or company, exceeding six persons, should make or issue in London, or within 65 miles thereof, any bill of exchange, or promissory note, or engagement for the payment of money on demand, or upon which any person holding the same may obtain payment on demand. But country bankers might have an agency in London, for the sole purpose of paying such of their notes as might be presented there.

II. For the purpose of removing any doubts that might exist as to what the exclusive privilege of banking, which the Bank of England enjoyed,

consisted in, it was enacted, that any body politic or corporate, or society, or company, or partnership, of whatever number they consisted, might carry on the business of banking in London, or within 65 miles thereof, provided that they did not borrow, owe, or take up in England any sum or sums of money on their bills, or notes payable on demand, or at any less time than six months from the borrowing thereof, during the continuance of the privileges of the Bank of England.

III. All the notes of the Bank of England, payable on demand which should be issued out of London, should be payable at the place where they were issued.

IV. Upon one year's notice, to be given within six months after the expiration of ten years from the first day of August, 1834, and repayment of all debts due by Parliament to the Bank, its privileges were to cease and determine, at the end of the year's notice.

V. So long as the Bank paid its notes on demand in legal coin, they were declared to be legal tender of payment, except by the Bank itself, or by any of its branches. No notes not made specially payable at any of the branches, were liable to be paid there, but the notes issued at all the branches were to be payable in London.

VI. Regulations about publishing its accounts, and exemptions of bills and notes, not having more than three months to run, from the usury laws.—These being altered now, need not be detailed.

VII. The public were to pay off one-fourth part of the debt due to the Bank, and the proprietors might reduce the capital stock of the Bank by that sum, if they chose.

VIII. In consideration of these privileges, the Bank was to give up £120,000 a-year from the sum they received for managing the public debt.

216. In consequence of the declaratory clause in this Act, permitting Joint Stock Banks to be founded in London, several were formed, as will be described hereafter. For several years after the renewal of the Bank Charter the harvests were unusually abundant, which caused all sorts of agricultural produce to be ruinously depressed. Wheat fell continuously through 1834 and 1835, till in the last week of December, 1835, its price was 36s. the imperial quarter. As all agricultural contracts were framed on the expectation that wheat would not be much less than 70s. the quarter, this long continued depression produced the most severe distress. At the same time, however, all the manufacturing interests were in a state of unexampled prosperity from the abundance and cheapness of food. The long continued low price of corn caused less to be sown in 1835, and the spring of 1836 was unfavorable. These causes combined to raise the price of wheat in 1836, and the harvest time being wet and cold, caused the price to rise to 61s. 9d. in the autumn.

217. The state of commercial prosperity during 1833, 1834, and 1835, gave rise to an immense amount of speculation and dabbling in foreign loans, as if people seemed incapable of learning wisdom from the experience of 1825. The unexpected success of the first railway gave rise to a considerable amount of speculation in the formation of railways. An immense extension of Joint Stock Banks economised capital to a great degree,

and afforded the means of the most fatal extension of credit. On the 14th August, 1834, Lord Wharncliffe called the attention of the ministry to the prodigious extension of Joint Stock Banks, and their branches, and the insufficient capital they were trading with. The important subject of Joint Stock Banking again occupied the attention of the House in 1836, and a committee was appointed to inquire into it. The committee sat during the Session and made two reports, which are noticed elsewhere.—(REPORTS, PARLIAMENTARY.)

218. We have seen that since the Bank of England had adopted the principles of the Bullion Report in 1827, the method they pursued of carrying them out, was to keep their "securities" as nearly as possible even, and to keep their bullion and cash equal to one half the "securities;" the bullion, cash, and securities being together equal to their "liabilities." Having got the Bank into this position while the exchanges were at par, to throw any action either of increase or decrease of their notes entirely upon the public, either by means of the foreign exchanges, or by an internal extra demand for gold. The Bank was got into this normal condition in October, 1833, when its "liabilities," i. e. the issues and the deposits, were £32,900,000, the "securities" were £24,200,000, and the "bullion" £10,900,000. In 1834 some commercial causes produced an export of specie; but in 1835 the foreign exchanges became favorable, and the drain was arrested. But in the meantime the Bank had totally lost all power of preserving the proportion between the bullion, securities, and liabilities it had professed to adhere to. The following table, taken at intervals, will exhibit this very clearly:—

1833.	Liabilities.	{ Securities—£22,640,000
1st Oct.	£30,937,000	{ Bullion £10,527,000
1834.		{ Securities—£24,777,000
11th March	£31,372,000	{ Bullion £ 8,901,000
15th March	£37,554,000	{ Securities—£31,735,000
		{ Bullion £ 8,298,000
9th Sept.	£31,058,000	{ Securities—£26,648,000
		{ Bullion £ 7,010,000
1835.		{ Securities—£29,165,000
18th Jan.	£33,071,000	{ Bullion £ 6,608,000
5th May.	£29,417,000	{ Securities—£26,179,000
		{ Bullion £ 5,961,000

This was the lowest point which the amount of bullion reached, and the drain was arrested. The above figures shew how totally deranged the proportions were to what the Directors considered to be a proper position for the Bank. From that time bullion continued to flow in, till in March, 1836, it slightly exceeded eight millions; but even then the securities were three times the bullion, instead of twice as they ought to have been.

219. The amount of bullion in the Bank was at its height in March, 1836, and then began steadily to decline again; in the middle of July it had fallen below six millions, when the Bank thought it was necessary to endeavour to stop it, and it raised the discount to 4½ per cent. This had no effect, however, in stopping the demand for discount. In September the bullion barely exceeded five millions, and the Bank raised the rate of discount to 5 per cent. The bubbles blown in the preceding year and spring of 1836, were now fast bursting on all hands.

220. The drain on the coffers of the Bank proceeded at a rapid rate, both from external and internal

causes. President Jackson had determined that the charter of the National Bank of the United States, which expired in 1836, should not be renewed, and that the currency of that country should be placed on a sounder footing than it had hitherto been, by forming a sound metallic basis. Operations to effect this purpose soon commenced. Immense quantities of American securities of all sorts were imported into England, and negotiated for the purpose of remitting the specie to America. The improperly low rate of discount in this country, favored by the inordinate multiplication of banks, enabled a great quantity of these securities of various descriptions to be realized in England, and the cash was remitted to America.

221. The joint stock banks had been blowing the bubble of credit to the utmost tenuity, by rediscounting most of the bills which they had discounted. This practice largely increases the proportion of paper currency compared to the metallic basis, and of course adds to any peril in times of discredit. The Bank of England at length, but too tardily, as has almost invariably been the case, awoke to the impending danger, and determined to strike a blow at the distended state of credit. It not only raised the rate of discount to five per cent. in August, but absolutely refused to discount any bills indorsed by any joint stock bank of issue. This was a great blow at the great amount of American securities afloat in the country, as most of those bills had been purchased by the joint stock banks, and re-issued with their own indorsements upon them.

222. In the autumn of 1836, the Agricultural and Commercial Bank stopped payment (BANKING IN IRELAND), and caused a general run upon all the Irish banks, which, however, having been foreseen, they had taken care to provide bullion to meet. But so great was the state of discredit, that even Bank of England notes were at a heavy discount in Dublin. In the meantime the drain on the Bank was increasing. At the beginning of October it had £5,035,000 in bullion, to meet £29,869,000 of liabilities; at the end of November its liabilities were £30,941,000, and the bullion £3,840,000. During December the bullion slightly increased, and in January diminished again. In November the Northern and Central Bank, with its head office in Manchester, and thirty-nine branches in the manufacturing districts, became seriously embarrassed, and applied to the Bank of England for assistance, which the Bank at first refused; but upon consulting the leading bankers in London, their opinion was, that the stoppage of so extensive a concern in the manufacturing districts would very probably bring on a general panic. The Bank, therefore, determined to advance the sum of £500,000 to enable it to meet its engagements, which, upon subsequently discovering that they were much more extensive than had at first been represented, was further increased to the sum of £1,370,000. Early in January, a London banking house applied for assistance to the Bank, and on the other London bankers giving their guarantee to the Bank of England, it made advances sufficient to enable that house to meet its engagements. The difficulties attending the American houses, both in London and Liverpool, became now so pressing, that they also were

obliged to apply to the Bank. Persons were appointed to look into their affairs, who represented that, if assistance were given them to meet their outstanding engagements, they would ultimately prove solvent. As an additional reason for granting this assistance, it was stated that, if these American houses were permitted to stop payment, their concerns were so vast, and so extended throughout the North of England, that a general destruction of credit would ensue. After full consideration the Bank determined to attempt to carry these houses through their embarrassments, and for this purpose it advanced the enormous sum of £6,000,000. This great operation, however, was successful, though the final liquidation of the account was retarded by the great prostration of American credit in 1839. The advances made to the banking interests in England were all repaid, principal and interest, with one very trifling exception. The Bank thus followed for a second time the principles laid down by the Bullion Report, and there can be no doubt averted a calamity only second in magnitude to the catastrophe of 1825.

223. The assistance of the Bank was only intended to be of a temporary nature, to give time for the gradual withdrawal of the great mass of unsound paper from circulation. This having been effected to a large extent the result followed, which always has been the case, and always must be the case, a great influx of gold to fill the vacuum caused by the great annihilation of this paper currency. During the whole of 1837 bullion rapidly flowed into the Bank, and in December it reached the sum of 10½ millions. The position of the Bank on the 13th March, 1838, was as follows:—

Liabilities.	{ Securities—£21,046,000
£31,573,000	{ Bullion £10,527,000

Thus, after a long period of five years, the Bank was at length brought back again into what the directors had laid down for themselves as the normal position, and it enabled credit to pass through a crisis which would have been tenfold more severe if it had not been met by that "judicious increase of accommodation," which the Bullion Report declared was the proper remedy for a temporary failure of credit.

224. From 1832 to 1837 there had been a series of seasons of remarkable abundance. For several years a series of great scarcity followed. The crop of 1838 was the worst that had been known since 1816, that of 1839 was scarcely if at all better. This great deficiency rendered it necessary to import foreign corn to the value of £10,000,000, a considerable portion of this required to be exported in specie. But just at this period a number of other concurrent causes happened to create a great demand for gold for foreign countries. During the preceding years America, France, and Belgium had carried the extension of paper credit to most extravagant lengths. In France and Belgium joint stock banks had been extensively formed. This great extension of paper currency had the very same effect as the over-issue of paper in England; it drove bullion out of those countries, and was one of the causes which, together with the fortunate destruction of the extravagant paper credit in England in 1837, caused such an influx of gold in this country up to March, 1838. But in this

latter year these bubbles burst. In the autumn of 1838 the Bank of Belgium failed, and a severe run upon the banks at Paris took place. This revulsion of credit, and extinction of paper issues in those countries, caused a current of bullion to set in towards them which came from the Bank of England.

225. In the beginning of 1838, when the bullion in the Bank had been rapidly increasing for several months, the commercial world thought it was time for the Bank to make use of the treasure in its vaults. It accordingly reduced the rate of discount from 5 to 4 per cent., and was induced to send over one million of sovereigns to America, the exchanges being favorable to that country, in consequence of the destruction of paper, to assist the American Banks to resume payments in cash. That is to say, the exchanges being AGAINST the country, the Bank *exports* bullion, and *extends* its issues!! What knowledge of Banking!!

226. On the 18th of December, 1838, the liabilities were £28,120,000, the securities £20,776,000 and the bullion £9,794,000. From this time a rapid and steady drain set in, which continued with unabated severity till October, 1839. When the Bank lowered its rate of discount to 4 per cent. in February, 1838, the market rate had fallen still lower, and in summer was about 3 per cent. From that time forward it began to rise, and, at the end of autumn, was level with the Bank. While everything was symptomatic of an impending drain of bullion, the Bank, on the 29th November, suddenly lowered its rate to 3½ per cent.! The market rate was now decidedly higher than that of the Bank, and the consequence was an immediate pressure for accommodation on the Bank. The securities which, in December, 1838, were £19,536,000, rose in January, 1839, to £27,594,000, and the bullion fell from £9,522,000 to £8,826,000. From that time forward until the middle of May, the drain of bullion continued, and on the 14th of that month, the liabilities were £25,711,000, the securities £24,098,000, and the bullion £4,117,000; that is, the bullion was a little more than *one-sixth* of the securities, when it ought to have been *one-half*, according to the theory of the Directors! On the 16th May, the Bank raised the rate of discount to 5 per cent., but the market rate had risen still higher, so that the drain continued. On the 20th May, the bullion stood at £3,910,000, but the directors were so utterly blind that, on the 30th, the time of shutting the books for the dividends, they still offered advances at 5 per cent. till the 23rd July. However, on the 23rd June, they became alarmed and raised the rate of discount to 5½, and refused to discount any securities except bills of exchange.

227. On the 16th July, the liabilities were £28,860,000, the securities £28,846,000, and the bullion £2,987,000, when the directors at last awoke to the fact, that the Bank was rapidly drifting into bankruptcy. On the 13th, they gave notice that they would be ready to receive tenders for the purchase of some terminable annuities, but the minimum price they fixed was so high that no sale took place. Besides raising the rate of discount in May, the Bank sold public securities to the amount of £760,000, and it authorized bills upon Paris to be drawn on its account to the amount of £600,000. These mea-

asures had the effect for a short time of arresting the drain. But when these bills came to maturity the Bank was in no better position to meet them, and it then became necessary to create a larger credit in Paris to meet the first. The position of the Bank was, of course, well known to all the foreign dealers in exchanges, and, in June, it was generally expected abroad, that it could not maintain payments in specie. In consequence of this, all long dated bills on this country were sent over for immediate realization, and the values withdrawn as speedily as possible. To counteract this drain, as well as to meet the payments of the first credit, which had been created on behalf of the Bank, it was obliged, in July, to organize a measure of a much larger nature. Messrs. Baring entered into an agreement with twelve of the leading bankers in Paris, to draw bills upon them to the amount of upwards of £2,000,000; and, as each of them had only a fixed credit at the Bank of France, that Bank agreed to honour their acceptances in case they should be presented there, and exceed their usual limits. An operation of a similar nature to the amount of £900,000 was organized with Hamburg. As soon as any bill was drawn on account of these operations, the Bank had transferred an equal amount of the annuities it had offered for sale in July, to two trustees, one for the drawers and the other for the acceptor. Out of this second credit the bills which fell due from the creation of the first credit were paid. This measure had the effect of gradually arresting the drain of bullion which reached its lowest point in the week ending the 2nd September, 1839, when it was reduced to £2,406,000. From that time it began slowly to increase, and in the last week of the year it stood at £4,532,000, the liabilities being £23,864,000, and the securities £22,098,000. The operations ensuing from this foreign credit extended over nine months, from July, 1839, to April, 1840, and the highest amount operated upon was in November, 1839, when it was £2,900,000.

228. The figures we have quoted, shewing the proportion between the bullion and the liabilities of the Bank, are sufficient to shew either that there was some natural impossibility in adhering to the rules the directors had laid down for their own guidance in 1832, or that they had not sufficient firmness to contract their issues in time of pressure to maintain it. The flagrant disproportion which these figures had assumed, which would scarcely be safe in an ordinary banking house, but which were to the last degree perilous in the Bank of England, which was known to be the last resource of every bank in the kingdom in times of difficulty, turned the attention of writers to devise some plan by which, if possible, the Bank should be compelled to maintain the proper proportion between bullion and liabilities. Lord Overstone, then Mr. Samuel Jones Loyd, is stated to have been the originator of the idea, which was eventually adopted, of dividing the Bank into two distinct departments independent of each other; one for the purpose of issuing a regulated amount of notes, and the other for carrying on the business of banking. This was one of the most prominent features in Sir Robert Peel's Act of 1844, and we shall reserve, till we come to that Act, any further notice of it.

229. The great commercial and monetary crisis the country had passed through within the few preceding years, attracted much public attention, and several petitions were presented to Parliament; and in March, 1840, the Government determined to institute an inquiry into the whole system of paper issues. On the 10th of that month the Chancellor of the Exchequer moved for a committee for that purpose. He reminded the House that the Bank Charter would terminate in 1844, and he thought it expedient that they should not postpone inquiry into the subject till the last moment. That whatever might be the difference of opinion among the most intelligent men, as to what part of the difficulties they had gone through were to be attributed to the Bank of England, or other banks, still they were very strongly of opinion that the present system required revision and alteration. The chief points of interest connected with the report and evidence, which we may mention here, are—

I. That the principles propounded in 1832, for the management of the Bank, for the purpose of conforming with the principles of the Bullion Report, were totally condemned.

II. The great modern heresy that bills of exchange form no part of the circulating medium or currency, which was first asserted before a Parliamentary Committee in 1832, was now maintained by the great majority of the commercial and banking witnesses.

230. This seems to have been the first adoption by mercantile men of the theory known by the name of the "currency principle," which shortly stated is this—*That when bank notes are permitted to be issued, the number in circulation should always be exactly equal to the coin which would be in circulation if they did not exist.* The advocates of this principle maintain that it is the only true mode of regulating a paper currency, and of preserving the paper of equal value with the gold coin. This theory sounds remarkably specious and plausible, and from the eminence of the persons who have been converted to it, has acquired much importance, and will require full examination (CURRENCY PRINCIPLE).

231. Nothing can be more wearisome than to read through the enormous mass of heterogeneous questions heaped upon one another, without aim or drift, tending to no result, and capable of producing none. Nothing can be more humiliating than the contrast between the bullion committee of 1810, and the committee of 1840. The bullion committee were masters of the science; they knew how to govern the direction of the inquiry, to cross-examine the witnesses, and make them expose their own fallacies, by involving them in contradictions and inconsistencies. And when the witnesses had given their opinions, the committee were able to judge and decide upon the value of the testimony, and the result was the complete demolition of the opinions of the great majority of the witnesses. But in the committee of 1840, the want of a presiding mind is painfully conspicuous. They were totally destitute of any knowledge of the principles of the science of banking, and after having protracted the inquiry through two sessions, they were obliged to come to the humiliating confession of their own incompetence to frame a report on the evidence given, and to

suggest to parliament the expediency of appointing a new committee for that purpose!

232. From 1838 a series of four bad harvests followed in succession, which were attended with much suffering to the people, high prices of corn, and, as a natural consequence, large importations of foreign corn, and a very low amount of bullion in the Bank. In fact, the alleged rule of 1832 was a complete dead letter, and it was not till the 27th August, 1842, that these proportions were again attained, when the liabilities stood at £29,022,000 and the bullion at £9,729,000. The crops of 1842, 1843, and 1844 were prodigiously abundant—the latter more so than any for ten years preceding. The consequences of this, as well as other circumstances which happened at that time to economize the capital of the country, produced a cycle of years of great apparent prosperity, but which ended in the great revulsion of 1847. The bullion in the Bank continued steadily and rapidly to accumulate until December, 1843, when it reached a higher limit than it had ever done before, being £14,982,000, and continued to increase after that until the passing of the Act of 1844.

233. On the 6th May, 1844, Sir Robert Peel moved a resolution of the House, that it was expedient to continue for a limited time certain of the privileges then enjoyed by the Bank of England, subject to any conditions that might be passed by any Act for that purpose. In bringing this resolution forward, he gave a preliminary sketch of the evils of the paper currency as it then stood, and the methods he proposed for placing it on a sounder footing. We shall not in this place enter into any account of the definitions of the word currency, or circulating medium, as we have done that in its proper place.—(CURRENCY: PEEL, SIR ROBERT). He then stated that it was the intention of Government to increase as much as possible the power of a single bank of issue, and that bank should be the Bank of England. The Bank was therefore to continue its privileges of issue, but it was to be divided into two departments, the one for the purpose of issuing notes, the other for the ordinary business of banking. But the Bank was to be deprived *once for all* of the power of unlimited issues. These were to take place in future on two foundations only: 1st, a fixed amount of public securities; 2dly, bullion. The amount of issues upon public securities was permanently fixed at £14,000,000, every other note was to be issued in exchange for bullion only, so that the amount of the notes issued on bullion should be governed solely by the action of the public. Although he wished there should only be a single bank of issue, yet existing interests were to be regarded; and those banks which were at that time lawfully issuing their own notes, might remain banks of issue; but their amount was to be strictly limited to a certain definite average.

234. It was impossible for Sir Robert Peel not to see the inconsistency of his measure of 1844, with his expressed sentiments in 1819 and 1833, that it was inexpedient to limit the issues of the Bank to any fixed amount, because there were times of commercial difficulty, when an increase of notes might be the proper remedy. There is no doctrine more strenuously insisted upon by the Bullion Report, by the Statesmen of 1819, as well as by the Government in 1833, and by Sir Robert Peel himself, at both these periods,

than that it was impossible to fetter the discretion of the Bank in its issues. Sir Robert Peel knew that he was now taking away this power from the Bank altogether, and accordingly he was obliged to meet this objection. He said—"It is said that the Bank of England will not have the means which it has heretofore had of supporting public credit, and of affording assistance to the mercantile world in times of commercial difficulty. Now, in the first place, the means of supporting credit are not means exclusively possessed by banks. All who are possessed of unemployed capital, whether bankers or not, and who can gain an adequate return by the advance of capital, are enabled to afford, and do afford that aid, which it is supposed by some, that banks alone are enabled to afford. In the second place, it may be a question whether there be any permanent advantage in the maintenance of public or private credit, unless the means of maintaining it are derived from the *bonâ fide advance of capital*, and not from a temporary increase of promissory notes, issued for a special purpose. Some apprehend that the proposed restriction upon issues will diminish the power of the Bank to act with energy at the period of a monetary crisis, and commercial alarm and derangement. But the object of legislation is to prevent (so far as legislation can prevent) the recurrence of those evils from which we suffered in 1825, 1836, and 1839. *It is better to prevent the paroxysm than to excite it, and trust to desperate remedies for the means of recovery.*" This extract shews the complete misconception of Sir Robert Peel on the subject of banking, because he believed that the advances were always made out of *bonâ fide capital*, whereas we have shewn that they are principally creations of credit.

235. The bill was read a second time, after a feeble opposition, by a majority of 185 to 30. It passed through the House of Lords with a very short debate, and no division. Lord Radnor alone protested against it, and it received the Royal Assent on the 19th July, 1844. Its chief provisions are as follows, Statute 1844, c. 32.

I. That after the 31st August, 1844, the issue of Bank Notes by the Bank of England should be kept wholly distinct from the general banking business, and be conducted by such a committee of the directors as the Court might appoint, under the name of the "Issue Department of the Bank of England."

II. That on the same day the Governor and Company should transfer, appropriate, and set apart to the issue department, securities to the value of £14,000,000, of which the debt due by the public to the Bank was to be a part; and also so much of the gold coin, and gold and silver bullion, as should not be required for the banking department. The issue department was then to deliver over to the banking department an amount of notes, exactly equal to the securities, coin and bullion, so deposited with them. The Bank was then forbidden to increase the amount of securities in the issue department; but it might diminish them as much as it pleased, and increase them again to the limit defined, but no further. The banking department was forbidden to issue notes to any person whatever, except in exchange for other notes, or such as they received from the issue department in terms of the Act.

III. The proportion of silver bullion in the issue department, on which notes were to be issued, was not at any time to exceed one-fourth part of the gold coin and bullion held at the time by the issue department.

IV. All persons whatever, from the 31st August, 1844, were to be entitled to demand bank notes in exchange for standard gold bullion, at the rate of £3 17s. 9d. per ounce.

V. If any banker, who on the 6th May, 1844, was issuing his own notes, should cease to do so, it should be lawful for the crown in council to authorize the Bank to increase the amount of securities in the issue department to any amount not exceeding two-thirds of the amount of notes withdrawn from circulation.

VI. Weekly accounts in a specified form were to be transmitted to Government, and published in the next London Gazette.

VII. From the same date the Bank was relieved from all stamp duty on their notes.

VIII. The annual sum payable by the Bank for their exclusive privileges should be increased from £120,000, as settled in 1833, to £180,000. And all profits derived by the Bank from the increase of their issues above the £14,000,000, as prescribed by the Act, should go to the public.

IX. After the passing of the Act, no person other than a banker who was lawfully issuing his own notes on the 6th May, 1844, should issue bank notes in any part of the United Kingdom.

X. After the passing of the Act, it was forbidden to any banker to draw, accept, make, or issue in England or Wales, any bill of exchange, or promissory note, or engagement for the payment of money payable to bearer on demand, or to borrow, owe, or take up in England or Wales, any sum or sums of money, on the bills or notes of such banker payable to bearer on demand, except such bankers as were on the 6th May, 1844, issuing their own bank notes, who were allowed to continue their issues in such manner, and to such extent, as afterwards provided. The rights of any existing firm were not to be affected by the withdrawal, change, or addition of any partner, provided the whole number did not exceed six persons.

XI. Any banker who ceased to issue his own notes, from any reason whatever, after the Act, was not to resume such issues.

XII. All existing banks of issue were forthwith to certify to the commissioners of stamps and taxes the place, and name and firm, at, and under which, they issued notes, during the twelve weeks next preceding the 27th April, 1844. The commissioners were then to ascertain the average amount of each bank's issues, and it should be lawful for such banker to continue his issues to that amount, provided that, on an average of four weeks, they were not to exceed the average so ascertained.

XIII. If any two or more banks of issue had become united during that twelve weeks, the united bank might issue notes to the aggregate amount of each separate bank.

XIV. The commissioners were to issue in the London Gazette a statement of the authorized issues of each bank.

XV. If two or more banks afterwards became united, each of less than six partners, then the commissioners might authorize them to issue

notes to the amount of their separate issues. But if the number of the united bank exceeded six, their privilege of issuing notes was to cease.

XVI. If any banker exceeded his authorized issues he was to forfeit the excess.

XVII. Every bank of issue was to send a weekly account of its issues, which was to be published in the *London Gazette*.

XVIII. The mode of taking the average was laid down, and bankers were to permit their books of account to be inspected by a government officer, properly appointed, and to make a return to government once every year, within the first fortnight in January.

XIX. The Bank of England was allowed to compound with private banks of issue, to withdraw their own notes, and issue Bank of England notes, for a sum not exceeding 1 per cent. per annum, up to the 1st August, 1856.

XX. All banks whatever in London, or within 65 miles of it, were allowed, after the passing of the Act, to draw, accept, or indorse bills of exchange, not being payable to bearer on demand.

XXI. The privileges of the Bank were to continue till twelve months' notice, to be given after 1st August, 1855, and repayment of the public debts, and all other debts whatever.

236. Such are the leading provisions of Sir Robert Peel's Act, which was meant to carry out a particular theory of currency, which we have no hesitation in affirming, is one of the most stupendous delusions on the subject any one ever conceived. For it was a formal inauguration of the "Currency principle," which is this: that "*A paper currency—meaning thereby bank notes, payable to bearer on demand—should always be exactly equal in amount to what a metallic currency would be, if they did not exist.*" This is the theory which the strenuous advocates of the Act always boast that it carries out. But they only exhibit their own profound ignorance of the mechanism of banking. In the first place, it is quite clear that the issue of £14,000,000 of notes is so much in excess of the metallic currency. The Bank gave £14,000,000 of sovereigns in purchase of these securities which are in circulation, and then it is allowed to create an additional sum of £14,000,000 in bank notes, which are also in circulation. Can any man in his senses deny that this operation doubles the quantity of currency to that extent? And this is the necessary result of all plans of issuing notes on the basis of securities; because it is quite clear that the securities must first be bought with money, and then, after that, an equal amount of notes are created, which are also treated as money. It is quite clear, then, that those persons who assert that the Bank Act of 1844, carries out the "Currency principle," assert this proposition:—

$£14,000,000 + £14,000,000 = £14,000,000.$

But, further than that, it is the universal belief that this Act prevents banks creating instruments of credit, and that bankers now only lend out the money they receive. But, in the preceding sections, we have shewn that this is a complete delusion. We have shewn that the business of banking consists in creating liabilities, and that the almost universal idea that the Joint Stock Banks have £40,000,000 of *bonâ fide* deposits in cash with them, is a complete fallacy, and that these figures are the substitutes and

representatives of the old bank notes. Consequently, the business of banking in London consists in creating millions of promises to pay every day. Hence, to shew the full error of those who think that the Bank Act of 1844 carries out the currency principle, we may say that they must believe that twice fourteen millions plus an indefinite number of millions, is equal to fourteen millions!! "*Etre dupe d'autrui,*" says Bastiat, "*n'est pas déjà très plaisant; mais employer le vaste appareil représentatif à se duper soi-même, à se duper doublement, et, dans une affaire de numération, voilà qui est bien propre à rabattre un peu l'orgueil du siècle des lumières.*"

237. But passing over a mere belief in a theory, whose correctness, or the contrary, this is not the place to inquire into, which we have done elsewhere—(CURRENCY PRINCIPLE)—this Act did what all the authorities of greatest note up to that time, and including Sir Robert Peel himself, had solemnly protested against, it IMPOSED A NUMERICAL LIMIT ON THE ISSUES OF THE BANK OF ENGLAND. We have shewn, under their respective heads, that the most eminent authorities, including Sir Robert Peel himself, had declared that there were times of difficulty and danger, when a JUDICIOUS INCREASE OF ACCOMMODATION was the true remedy to be adopted; and in 1833 Sir Robert Peel himself had protested against the institution of another bank of issue in the metropolis, because it would hamper the action of the Bank of England in supporting public credit. But in 1844 he had totally changed his opinion. He expressly took away this power from the Bank. The fact was, the theory he seemed to adopt was that all the preceding crises had been caused by the improper issues of the Bank of England and other banks, and if these could be prevented, there could be no crisis, and consequently no necessity for this power. Moreover, the authors of the Act of 1844 flattered themselves that for every five sovereigns that left the country, a five pound note must be withdrawn from circulation. We shall see shortly how these expectations were fulfilled. Sir Robert Peel alleged that this Act was the complement of the Act of 1819, now we have shewn—(Elements of Political Economy, chap. VII.; and PAPER CURRENCY)—that this idea is a complete fallacy, and that the Act of 1819 and the sentiments and opinions of its authors, are founded on a totally distinct theory of paper currency to the Act of 1844, and the opinions of its supporters. In the same Session an Act for the regulation of Joint Stock Banks was passed, which having been found to be nothing but a mischief and a nuisance, has been totally repealed!

238. Owing to the good harvests of 1842, 1843, and 1844, the bullion in the Bank accumulated very rapidly during those years, and a very large quantity of money, which the nation must otherwise have spent in food, was set free for commercial purposes. Other circumstances occurred at the same time, to liberate a large quantity of the capital of the country from its accustomed use, and to render it applicable to commercial purposes. These have been very clearly and ably pointed out by Mr. James Wilson.—(Wilson, JAMES).

239. The Act of 1844 having placed an absolute limit upon the discretion of the Bank in

Issuing notes, Sir Robert Peel said that he thought that banking business could not be too free and unrestrained. The extraordinary accumulation of capital, arising from the circumstances we have just alluded to, lowered the market rate of discount to $1\frac{1}{2}$ and $2\frac{1}{2}$ on the best bills, and the Bank of England immediately conformed to the market rate on the passing of the Act, and reduced its rate from 4 per cent. to $2\frac{1}{2}$ for the best bills. The day the Act came into operation the whole of the discounts were done at $1\frac{1}{2}$, and they continued at that rate for a fortnight, when some were done at 2 per cent.; and up to the 26th October a considerable portion was done at $2\frac{1}{2}$. From this date, however, up to October, 1845, the rate was $2\frac{1}{2}$; in November, 1845, the rate was suddenly raised to $3\frac{1}{2}$, and continued at that figure till August, 1846, when it was lowered to 3 per cent. These rates being governed by the flow of bullion, which diminished from 15½ millions, when the Act of 1844 passed, to 13½ millions in November, 1845; after which it increased again to above 16 millions in August, 1846, and then began steadily to decline, till it reached its minimum in the great crisis of October, 1847.

240. The first failure of the potato crops in Ireland in 1845, and the railway mania of that year, must be in the recollection of most of our readers and need not be detailed here, nor had they anything to do properly with the management of the Bank, whose sole duty it was to look to its own affairs, and preserve its own stability. The calamity of 1846 was far more severe and extensive than that of the preceding year. It was absolutely certain that an immense quantity of bullion would require to be exported in payment of the grain it would be necessary to import. Accordingly, from the middle of September, 1846, a steady and continuous drain of bullion set in, but the Bank made no alteration in the rate of discount until the 16th January, 1847, when the bullion had fallen to £13,949,000, it raised the rate of discount to $3\frac{1}{2}$, and on the 23rd the bullion having been further diminished by £500,000, it raised the rate to 4 per cent. Henceforth the drain continued rapidly, but the Bank still continued to make no alteration until the 10th April, when the bullion having fallen to £9,867,000 the rate was raised to 5 per cent. Here we have the same inveterate blunder committed by the Bank as on so many previous occasions—an immense drain of bullion, and yet none but the most feeble, inefficient, and puerile means taken by the Bank to raise the value of money here. But the operation of the Bank at this time is an excellent example of the self-acting nature of the Act of 1844. We need only observe that the banking capital of the Bank of England at this time was £14,000,000, based upon public securities, together with notes representing as much bullion as there is in the issue department. Consequently the notes held in reserve must always be equal to the difference between the notes in circulation, or held by the public, and the sum of £14,000,000 added to the quantity of bullion. Now we have seen that the intention of the framers of the Act of 1844 was, that, as the bullion diminished, the notes in the hands of the public should be diminished in conformity to the "currency principle." Now what did the directors do? Instead

of reducing the notes in circulation, or held by the public, they threw the whole diminution on their own reserves! On the 29th August, 1846, the notes held by the public were £20,426,000, the bullion was £16,366,000, and the notes in reserve were £9,450,000; after this a very severe and continuous drain of bullion took place, but no perceptible alteration whatever was made in the notes in circulation, but the notes in reserve rapidly diminished. On the 10th April, 1847, the notes in circulation were £20,243,000, the bullion was £9,867,000, and the notes in reserve £2,558,000. Consequently nothing could be a more total and complete failure of the Act of 1844, on the very first occasion its services were required.

241. The number of notes held in reserve in the banking department, under the new system of 1844, corresponded in effect very much to the amount of the bullion held by the Bank before its division. When, therefore, the public saw that the whole banking resources of the Bank were reduced to £2,558,000, a complete panic seized both the public and the directors. The latter adopted measures of extreme severity to check the demand for notes. The rate was raised to 5 per cent., and this was made applicable only to bills having a very few days to run, and a limit was placed upon the amount of bills discounted, however good they might be. Merchants who had received loans were called upon to repay them without being permitted to renew them. During some days it was impossible to get bills discounted at all. These measures were effectual in stopping the efflux of bullion, and a sum of £100,000 in sovereigns, which had been actually shipped for America, was relanded. During this period the rate of discount for the best bills rose to 9, 10, and 12 per cent. During all this time the price of wheat continued steadily to rise, notwithstanding the monetary pressure; and at the close of May, the price on one occasion reached 131s. in the Windsor market. The foreign exchanges, which had been adverse to the country during the latter part of 1846, and the beginning of 1847, from the immense quantity of foreign corn which was imported, became favourable in the middle of April, partly owing to the great monetary pressure.

242. The pressure passed off after the first week in May, having lasted about three weeks, and bullion began to flow in after the 24th of April, until, at the end of June, it amounted to £10,526,000, the notes in circulation being £18,051,000, and the notes in reserve £5,625,000.

243. The conduct of the Bank in keeping down the rate of discount, when a rapid drain was going on, and the foreign exchanges were unfavourable, was the exact counterpart of what it had done on so many previous occasions, and excited much comment and adverse criticism by the whole commercial community of London. The market rate rose decidedly above it, so that a rush for discounts was made to the Bank, which were no sooner obtained in notes, than the holders of them went immediately to the issue department to demand gold for them. But we have noticed in the preceding account one fact of immense importance. *The Bank raised the rate of discount, and gold which had been already shipped was relanded.* This is a decisive instance of the doctrine we have

proved, *that the rate of discount is the true mode of controlling the paper currency and the movements of bullion.* (*Elements of Political Economy, chap. V. Theory and Practice of Banking, chap. XIII. DISCOUNT.*)

244. The enormously high price of grain, which had no parallel since 1812, had the natural effect of tempting a great number of houses to enter into speculations for the import of grain, far beyond their power to support. The enormous importations in May, June, and July, coupled with the very favourable appearance of the harvest, caused a heavy and continuous fall in the price of grain, and the reports of the potato crop being very favorable, the price of wheat fell to 49s. 6d. in September. This tremendous fall in the price of wheat was fatal to the houses which had speculated in it. Moreover, that hideous nuisance which always flourishes with noxious luxuriance in times of speculation—accommodation paper—was extensively prevalent. The failures in the corn trade began in August, and continued to increase in number and magnitude till past the middle of October.

245. As we have given a full account of this great crisis in its proper place (*CRISIS, COMMERCIAL*), we shall not enlarge upon it here. It is sufficient to say that from Monday the 18th to Saturday the 23rd it was at its height;—that for a considerable time the Bank attempted to carry out the restrictive policy as they had done in 1825, and that at length the ministry took upon themselves to advise the Bank to break through the provisions of the Act, and advance notes freely wherever they judged it prudent, but at a very high rate of discount—not less than eight per cent.—and that this policy was completely successful, and immediately allayed the panic. Thus following exactly the principles of the Bullion Report.

246. The ministry having authorized the Bank to commit a breach of the Act, felt bound to meet Parliament as soon as possible. In the debate that took place, Sir Robert Peel felt particularly called upon to come forward and defend the Act of 1844. After defending himself from some minor charges, he protested against singling out individual members of Parliament, and making them responsible for the acts of the whole legislature. He said that some persons alleged that the Act of 1844 had been passed without due inquiry, but he recounted the committees that had sat for five years, and had asked upon the whole upwards of 14,000 questions—questions and answers without end—but with no practical result from those apparently interminable investigations. The last committee had closed its labors without any practical results. At last the ministers determined to bring forward a measure on their own responsibility, which had been carried by extraordinary majorities; but nevertheless, if it could be shown that the Act of 1844 could be amended, that it ought to be done. He said, "There has been some misapprehension respecting the objects of this Act. *I do not deny that one of the objects contemplated by the Act was the prevention of the convulsions that had heretofore occurred, in consequence of the neglect by the Bank of England to take early precautions against the withdrawal of its treasure.* I did hope, that although there was no imperative obligation on the

Bank of England to take these precautions, that the experience of 1825, 1836, and 1839, would have induced that establishment to conform to principles which the directors of the Bank acknowledged to be just, and which they had more than once professed to adopt for their own regulation. Sir, I am bound to say that in that hope, that in that object of the bill, I have been disappointed. I am bound to admit, seeing the extent of commercial depression which has prevailed, and the number of houses which have been swept away, some of which, however, I think were insolvent long before the bill came into operation, and others of which became insolvent in consequence of the failure of those who were connected with them, and were imprudent in their speculations, I am bound to admit that that purpose of the Bill of 1844, which sought to impress if not a legal, at least a moral obligation on the Bank to prevent the necessity for measures of extreme stringency by timely precautions; has not been fulfilled. Sir, I must contend that it was in the power of the Bank, if not to prevent all the evils that have arisen, at least greatly to diminish their force. If the Bank had possessed the resolution to meet the coming danger by a contraction of its issues, by raising the rate of discount, by refusing much of the accommodation they granted between the years 1844 and 1846—if they had been firm and determined in the adoption of these precautions, the necessity for extrinsic interference might have been prevented, it might not then have been necessary for the government to authorise a violation of the Act of 1844. * * * The Bill of 1844 had a triple object. *Its first object was that in which I admit it has failed, namely, to prevent by early and gradual, severe and sudden contraction, and the panic and confusion inseparable from it.* But the Bill had at least two other objects of at least equal importance—the one to maintain and guarantee the convertibility of the paper currency into gold; the other to prevent the difficulties which arise at all times from undue speculation, being aggravated by the abuse of paper credit in the form of promissory notes. In these two objects my belief is that the Bill has completely succeeded. My belief is that you have had a guarantee for the maintenance of the principle of convertibility such as you never had before. My belief also is, that whatever difficulties you are now suffering from a combination of various causes, those difficulties would have been greatly aggravated if you had not wisely taken the precaution of checking the unlimited issues of the notes of the Bank of England, of joint stock banks, and private banks." Sir Robert Peel then entered into a most able description of the true evils the country was suffering under, which arose from the enormous destruction of capital by the dearth of food, and the unusual absorption of capital in one channel of commerce, the construction of railroads, which were not yet remunerative. He shewed the absurdity of expecting to have cheap money, while capital was scarce. He cordially approved of the course the Government had taken in not issuing the letter sooner than they did, and in doing it when they did. *THUS AT ONCE ABANDONING THE CURRENCY PRINCIPLE, and going back to his old opinion that the Bank of England ought to extend its issues in times of commercial crisis.* "The true remedy for

the state of things the country was suffering under was individual exertion, the limitation of engagements, the cessation of all demands which could be postponed; an earlier issue of the letter would have relaxed these necessary exertions. But to that pressure a panic succeeded, which could not be provided against, or foreseen by legislation, which could not be reasoned with, and which could only be met with by a discretionary assumption of power by the Government suitable to the emergency. Whether any modification of the Act of 1844 was desirable was a question for future consideration. His own opinion was in favour of the maintenance of the great principles of that measure. If the identical restrictions were not imposed upon the Bank as were then in force, still there must be some restrictions, for after the experience of 1825, 1836, and 1839, he, for one, would not be content to leave the regulation of the monetary concerns of this country to the uncontrolled discretion of the Bank. In 1844, the general conviction was that it ought not to be so left, and he for one knew no better mode of imposing restriction than that which was devised by the Act of 1844."

247. Both Houses of Parliament appointed Committees to inquire into the causes of the commercial crisis. The Committee of the Commons presented their Report on the 8th June, 1848. It entered into no scientific examination of the correctness or the contrary of the opinions of the witnesses; it aspired to, and attained, no higher function than that of acting as a kind of preface to the mass of evidence, but concluded by stating the opinion of the Committee, that it was not expedient to make any alteration in the Act of 1844. The Report of the Committee of the Lords was a much more elaborate production. It not only examined the evidence at considerable length, but pronounced an opinion of its own, and recommended that the Act should be so far amended as to introduce a discretionary relaxing power, which was only to be exercised during the existence of a favourable foreign exchange.

248. After the severe medicine which the body commercial was subjected to by the great crisis of 1847, which there can be little doubt was of great service, by removing houses that had been insolvent for years, the commerce of the country was established on a sounder footing, and for several years proceeded with great prosperity. In 1854 war was declared with Russia, and the seat of it being principally in the Black Sea, a great demand for shipping arose, which, as usual, caused much speculative dealing in that species of property. This occurred especially at Liverpool in the autumn of 1854, and led to some very extensive failures. The revelations which ensued from these failures, disclosed that the same inveterate and abominable practices of accommodation paper were again rampant. Fictitious bills to an enormous extent were fabricated among persons who were in the same species of business, and were negotiated all over the kingdom. Nor were the evil effects of these frauds confined to Liverpool, or to that time. Banks all over the kingdom were victimized by this gang, and a great establishment in that town was deeply and irretrievably injured, and fell in 1857, being one of the causes of the panic in that year. Moreover, the discoveries of

gold in Australia led to a vast overtrading to that country, and caused great embarrassments among that class of traders. In June the bullion in the Bank stood at £18,169,000, when an extremely severe drain began, and by the 13th October it was reduced to £11,752,000, which is by far the severest on record. What the causes of this were it does not concern us to inquire. The only thing that concerns us is the conduct of the Bank. On this occasion it acted with a promptitude and decision most favorably contrasted with its former errors. The rate of discount was rapidly raised to enhance the value of money; on no former occasion was the rise so rapid and extensive in so short a time, but the effect produced was most salutary; although there was a considerable pressure, there was no panic. In order to show clearly the different mode of action adopted by the Bank, we may give the following figures:—

		Bullion in the Issue Department. £	Minimum Rate of Discount.
1855.			
January	4	13,180,835	5
"	20	11,880,580	5
Feb.	22	12,313,230	5
March	22	13,479,975	5
April	12	14,392,500	4½
May	3	14,791,785	4
"	17	15,386,510	4
"	31	16,337,685	4
June	14	17,056,945	3½
"	28	17,429,435	3½
July	19	16,631,890	3½
August	9	15,601,590	3½
Sept.	6	14,368,010	4
"	13	13,668,005	4½
"	27	12,695,250	5
October	4	12,363,255	5½
"	18	11,205,855	6
		per cent. for bills not longer than 60 days.	
Nov.	8	10,741,320	7
		for 95 days.	
Dec.	6	10,580,510	
"	27	10,369,595	

On the 29th December the *Economist* said, "The money market continues as stringent as it can well be, and no bills can be discounted under the Bank rates. Paper at long dates cannot be discounted on any terms. The great extent of our trade, as indicated by the returns for November, confirms the suspicion awakened by the continued demand for money, that trade has received no serious check from the advance in the rate of discount, and is still more extensive than prudence warrants, or in the end will be justified."

249. This most judicious conduct on the part of the Bank, which merited nothing but the most unqualified commendation, excited a great clatter amongst a certain number of people, who think that money is to be created *ad libitum* by writing "promises to pay" on bits of paper, when there is no money to pay them with, and who think it possible to send one's money abroad, and also to have it at home. The papers were filled for weeks with letters and articles exhibiting all the rank follies which were once prevalent on the subject of the price of corn, and which have been so admirably exposed by Adam Smith. But in this respect, a most marked and healthy change has been of late years most manifest in the ma-

majority of public writers. The great majority now understand that the rate of discount is the true regulating power of the paper currency, and instead of assailing the Bank with howls and execration when it does its duty in raising its rate, they, with a few exceptions, now universally commend it. This is great, real, and sound progress in the spread of true economic science.

250. At the end of this year the Queen exercised the power reserved in the Act of 1844, to enable the Bank of England to extend its issues to not more than two-thirds of the amount of those of any banks of issue that might cease to issue notes. From the passing of the Act up to this period forty-seven banks, whose authorized issues amounted to £712,623, ceased to issue their own notes, and on the 13th December, 1855, the Queen in Council issued an order authorizing the Bank of England to increase its issues to the amount of £475,000 upon public securities. But this is not the entire *bonâ fide* increase to the issuing power of the Bank. For in the year 1854 the clearing house was organized on a better plan (CLEARING HOUSE), and whereas before that, an average amount of £200,000 of bank notes were required to adjust its transactions, by the new system these were totally dispensed with, and no notes at all are now required. Moreover, by the admission of the joint stock banks to the clearing house, they are saved from keeping an enormous amount of notes to meet the "bankers' charges," which may safely be calculated at £500,000. These notes, therefore, are now available to the Bank to use for commercial purposes, and consequently are to be considered as so much additional power of issue to the Bank, which has thus in reality acquired an increased power of issue to the amount of £1,175,000, since the Act of 1844. Up to February, 1857, seven other banks, whose aggregate issues amounted to £111,020, have ceased to issue notes, but no further power has yet been granted to the Bank to extend its issues.

251. For several months after the beginning of 1856, the money market continued in a state of great "tightness," and the bullion in the Bank scarcely varied. The lowest was on the 26th April, when it stood at £9,081,675; after that it gradually rose, and the rate of discount fell in summer to about $4\frac{1}{2}$ and $4\frac{1}{4}$, but in October the bullion fell very considerably again, and discount rose to 7 and 8 per cent., and a pressure followed, of about the same severity as in 1855, and continued with very little variation to the end of the year.

252. The year 1857 opened with money at a comparatively high rate, which gradually somewhat abated, but after a temporary relaxation, discount in April rose again to 7 and 8 per cent. The bullion continued all the time in a low and unsatisfactory condition, owing to the extraordinary activity of trade, and the demand for it for foreign enterprises. Trade in this year assumed that sudden and unusual increase, which ample experience now enables us to pronounce is always to be looked upon as a dangerous symptom, and as a sure precursor of a crisis. However we shall not repeat here what we have said elsewhere, (CRISIS, COMMERCIAL) where the pathology of this crisis is fully detailed. There is nothing which in a banking point of view calls for special remark during the summer. In the middle of September

the news came from America of the stoppage of the *Ohio Life and Trust Company*, which had always been held in good estimation, and had paid a good dividend a few days before it closed its doors. Its business appears to have been to make advances on the shares of public companies, somewhat similar to the *Crédit Mobilier* of Paris. In the beginning of October, the Bank raised its discount from $5\frac{1}{2}$ to 6 per cent., and on the 10th to 7 per cent. The news then came of further failures in America, and discount rose rapidly in all the continental markets, at Hamburg to 9 per cent. On the 17th, the Bank raised its discount to 8 per cent. By this time the panic had fairly begun. In the week ending October 31, the news came that all the banks of New York had suspended cash payments in a body, and the Borough Bank of Liverpool, and a great many other houses connected with the American trade. On Thursday, November 5, the Bank raised its discount to 9, and on the following Monday to 10 per cent., but matters only became worse and worse. On the 9th November the Western Bank of Scotland stopped payment. The panic spread to London; Sanderson & Co., the bill brokers, stopped, with liabilities exceeding £3,000,000, and a run was beginning on the joint stock banks. They nearly all stopped discounting. On Wednesday, November 11, the bullion in both departments of the Bank was reduced to £7,170,508, and the reserve of notes to £957,710. To shew how greatly more severe the strain upon the resources of the Bank was in 1857 than in 1847, we may observe that when the government letter in the latter year was issued, the reserve of notes was still £2,155,000. On Thursday, November 12, the Bank and all its branches commenced business with resources only amounting to £957,710, being considerably less than the amount it had in cash when it stopped payment in 1797, and lower than it was even reduced to in 1825. At the close of the day, the whole reserve of the Bank and all its branches in notes and coin was £581,000, being £131,000 in notes, £358,000 in gold, and £92,000 in silver coin; of which £384,000 was in London. There could be but one result. *Immediate and universal failure.* On this day, the government sent a letter to the directors of the Bank, recommending them, if necessary, to disregard the provisions of the Act of 1844, and to make advances to any amount they deemed necessary, upon approved security, but at a rate of discount not less than 10 per cent. The directors immediately acted upon this recommendation, and the panic was immediately allayed! Exactly as had happened on several previous occasions, and as the Bullion Report had declared ought to be done. Nor are we saying anything too strong, when we say that universal failure would have ensued if the Act had not been suspended, for Lord Overstone himself, the chief supporter of the Act of 1844, said in the House of Lords that if it had been maintained twenty-four hours longer the whole of the joint stock banks of London would have been swept away.

253. The issues made by the Bank in consequence of this letter also proved how much more severe this crisis was than the preceding one. In 1847 the issues after the receipt of the letter only amounted to £400,000, and no infringement of the Act took place; in 1857 the issues in consequence of the letter exceeded the

amount authorized by the Act by £2,000,000; and immediately on the meeting of Parliament, an Indemnity Act was passed to protect the directors from the penalties of the Bank Act of 1844. That Act was suspended until the 1st of February, but it was provided, that if the directors reduced their discount below 10 per cent. it should immediately revive again, and the notes must be reduced to their legal limits. The severity of the crisis immediately turned the exchanges in favor of the country, and gold began rapidly to flow in; and on Thursday, December 24, the Bank reduced its discount to 8 per cent., thereby immediately reviving the operation of the Act of 1844.

254. In 1858 the inevitable consequences followed from the great crash of 1857. The enormous mass of false trading being cleared away, money naturally flowed into the Bank, and the quantity of bullion gradually and steadily increased up to the end of the year. We may give the following figures which shew distinctly the connection between the bullion and the rate of discount—they exhibit all the changes in the rate which took place during the last year.

1858.	Coin and Bullion.	Discount.
Jan. 7	£12,648,193	6
" 14	13,357,107	5
" 28	15,396,724	4
Feb. 4	15,793,696	3½
" 11	16,574,647	3
Dec. 3	18,921,171	2½

For a very considerable period before the Bank made this last change, the general market rate had been 2½, while the Bank kept their rate obstinately fixed at 3 per cent., no one could tell why. At last, however, having maintained this extraordinary policy for about ten weeks, they were obliged to comply with the laws of nature, and lower their rate to 2½ per cent. The figures in the above table contrast most favourably with those which appear in 1847, for while we find that in 1847 the bullion had fallen to £9,867,000 before discount was raised to 5 per cent., in 1858, that rate of discount was maintained at that rate until the bullion exceeded £15,000,000—a great advance in sound principle. This year passed away in great tranquillity, persons not yet having forgotten the lesson of 1857. But we cannot doubt, judging by all former experience, that an uneasy spirit will soon be abroad again; we cannot doubt that the brood of speculators are now anxiously casting about to see if they can plant the seeds of the next crisis, and it is the duty of those who are now at the head of monetary affairs to be on the watch to counteract all such attempts as they can detect; and in the meantime the most interesting question at the present time, in a banking point of view, is—What is to be the next mania?

On the Rise and Progress of Joint Stock Banking in England.

255. It is very commonly supposed that Joint Stock Banks were not permitted by law in England before 1826, nor in the metropolis till 1833, but the preceding narrative shews that this idea is incorrect. By the common law, joint stock companies of all sorts, including of course banks, are perfectly legal, and consequently, if we wish to have a correct idea of the matter, we must observe this, and then ascertain what

changes and modifications were made in the common law by successive Acts of Parliament.

256. Although the first joint stock mania in England took place in 1694, no one at that time thought of getting up a joint stock bank, in fact, joint stock bank shares are the very last things any one would think of getting up as a mere speculation. When the Bank of England was founded, it received no monopoly in its favor, and it was only in 1697, after the disastrous failure of the Land Bank Scheme, and the ruin of public credit, that the Bank was enabled to obtain a monopoly. But even that did not affect the common law right to establish such institutions, it only said that no rival bank should be erected or countenanced by Parliament. None, however, were formed; but, in 1708, another company began doing banking business by issuing notes. The Bank then, in 1709, obtained the clause in the Act of that year prohibiting any company of persons exceeding six in number, from "borrowing, owing, or taking up money on their bills, or notes payable to bearer on demand," which we have shewn was the well understood meaning of the word "banking" at that time. This clause was effectual up to 1742, when in the Act of that year, it was re-enacted in much more full and explicit terms. But still the restriction was confined to borrowing, or owing, money on their bills, or notes. Consequently the new method subsequently introduced of creating liabilities by means of entries and cheques, which was borrowed from the Dutch by our bankers, was not affected by the restrictive words of the Act. As soon, therefore, as the London bankers discontinued their issues of notes, and adopted entries and cheques, there was no law whatever to prevent joint stock banks being formed, and carried on by that method. This, however, completely escaped observation, and we can have very little doubt that if this flaw in the monopoly had been discovered, and an attempt made to take advantage of it, Parliament would immediately have put it down, as there can be no possible doubt, but that it was their manifest intention to create a complete and effectual monopoly on behalf of the Bank, and protect it from any rival banks of any sort whatever. The effects of this monopoly, however, were most disastrous. Bank of England notes had no circulation beyond London, and it would not establish any branches in the country. No other powerful and wealthy banks could be formed, the consequence was, that when enterprise awoke in the country in the last quarter of the last century, and there was a great demand for an increased currency, all sorts of petty tradesmen in all directions, grocers, linendrapers, cheesemongers, tailors, &c., started up, and turned "bankers," i.e., issuers of promissory notes, so much so, that in 1793, there were about 400 of these country "bankers." But of course this paper currency was of the most rotten description, and on the occasion of any great commercial crisis, they failed by dozens. In the great crisis of 1793 no less than 100 stopped payment, and double that number were greatly shaken. In 1810 about a similar number stopped, a great number in 1812; and in the three years, 1814-15-16, ninety-two commissions in bankruptcy were issued against banks; and, allowing the usual

proportion of four suspensions to one bankruptcy, in those three years alone about 360 banks stopped. In twenty-eight years, from 1791 to 1818, the official return shews that 273 commissions were issued against bankers, or we may fairly assume that upwards of 1000 banks stopped payment during that period. The intolerable hardship of the monopoly of the Bank Charter may be conceived, when the Bank, doing no business itself at such places as Bristol or Liverpool, no powerful bank could be formed at these places, on account of it. These enormous failures among the country bankers, spreading ruin and desolation throughout whole districts of country, naturally turned public attention to the Scotch system of banking, where, with the single exception of the Ayr Bank, there had been no failure of a joint stock bank. Mr. Joplin is the earliest person that we are aware of, who discovered that the Charter of the Bank of England did not prevent banking companies being formed, which did not issue notes (JOPLIN). In a pamphlet, entitled *Supplementary Observations to the Third Edition of an Essay on Banking, &c.*, 1823, he says, p. 84, "That public banks have not hitherto existed, more especially in London and Lancashire, seems to have arisen from the want of a proper knowledge of the principles of banking, rather than from the Charter of the Bank of England, which I find, does not prevent public banks for the deposit of capital from being established * * * *". That banks ought to be the permanent depositories of the capital of the country, is an idea which no writer has hitherto entertained, and the silent operations of the Scotch banks have eluded observation. It has, in fact, always been hitherto considered, that the proper business of a bank was to issue notes and discount bills at short dates. This is very strikingly exemplified by the clause in the charter of the Bank of England, which restricts other banks to six partners." (Mr. Joplin then quotes the clause, and says,) "It is quite evident that the framers of the above clause considered the business pursued by the Bank of England, the only proper banking. It appeared to them that preventing banks with more than six partners from issuing bills at short dates, or notes payable on demand, was altogether conferring on the Bank the privilege of exclusive banking as a public company. *This it did no doubt according to their definition of the term, but it still leaves the most important part of banking open to the public. There is at this moment no legal impediment to the establishment of joint stock companies for trading in real capital.* Both the letter and the spirit of the charter has reference to the circulation of bills and notes alone. A bank which traded only in capital, would not in the least touch upon the monopoly of the Bank of England, nor be any infringement of its charter." Thus Mr. Joplin has, as far as we are aware, the merit of perceiving the loophole in the Act, by means of which, ten years later, the first Joint Stock Bank was established in London.

257. An attempt in 1823 to gain the consent of the Bank of England to give up the privileges of their Charter, so far as to permit joint stock banks to be formed in the country, having failed, even though a bribe was offered, nothing further took place till 1826, when the disasters of the

preceding year being very generally attributed to the improper management of the country banks, the ministry were powerful enough to compel the Bank to give up its unjustifiable monopoly, and at length agreed to permit joint stock banks to be formed beyond sixty-five miles from the metropolis. The Statute 1826, c. 46, was passed for this purpose. Its chief provisions are—

I. That banks of an unlimited number of partners may be formed, and carry on all descriptions of banking business by issuing notes and bills payable on demand, or otherwise, provided that such corporations or partnerships should not have any house of business or establishment as bankers in London, or at any place within sixty-five miles of London; and that each member of such corporation, or partnership, should be liable for all its debts of every description, contracted while he was a partner, or which fell due after he became a partner.

II. No such banking company was to issue or re-issue, either directly or indirectly, within the prescribed distance, any bill or note payable to bearer on demand, or any bank post bill, nor draw upon its London agents any bill of exchange payable on demand, or for any less sum than £50, but they might draw any bill for any sum of £50 or upwards, payable in London or elsewhere, at any period after date, or after sight.

III. Such banking companies were expressly forbidden, by themselves or their agents, to borrow, owe, or take up in London, or at any place within sixty-five miles of London, any sum of money, on any of their bills or notes payable on demand, on at any less time than six months from the borrowing thereof, but they might discount in London, or elsewhere, any bill, or bills, of exchange, not drawn by, or upon, themselves, or by, or upon, any person on their behalf.

IV. Before such a company began business, they were to make a return of the names and addresses of all their partners, and places for carrying on business, and the names of two or more of their partners, being resident in England, who were to be appointed public officers, and in whose names the company were to sue and be sued, which return was to be verified by oath. And they were required to make returns of all changes in their body.

V. That all proceedings at law and in equity, civil and criminal, should be taken by and against the public officers of the company. All decrees and judgments obtained against such public officers should be valid against all and every member of the company; and execution upon a judgment against the public officer might be issued against any member of the company. But that every such public officer or person, against whom such execution was issued, should be fully indemnified by the other members of the company; but that no execution should issue against any person, more than three years after he had ceased to be a partner.

VI. The Bank of England was authorized to establish branches at any place in England.

VII. Such banking companies might issue unstamped notes upon giving certain security to the Crown, to make true returns of the amount of their issues, and to pay the amount of stamp duty on them; and they were not obliged to take out more than four licences for issuing notes in different

places. For any breach of these provisions in neglecting to send returns, the penalty was £500 per week, and various penalties were exacted for false returns. And every breach of the provisions relating to their banking business subjected the company to a penalty of £50.

VIII. The rights and privileges of the Bank of England were to remain intact and unaltered, except so far as varied by that Act.

258. Subject to these restrictions upon their business, this Act made no provisions regarding the constitution or capital of these companies. Each one was allowed to devise a constitution for itself, to name its own capital, and to make any public announcement regarding it that it pleased. The formation of joint stock banks under this Act proceeded very slowly at first, not more than four or five being formed in as many years. In fact, such banks could only be successfully formed by influential persons, and of course each of these had already his own bank, which he would naturally be unwilling to injure by the formation of so powerful a rival. The first joint stock bank was formed at Lancaster, the next at Bradford, and another at Norwich, before any one was formed at one of the great manufacturing towns. It was not till the prosperous years of 1833-34-35-36, that any very remarkable increase took place in their numbers. In these years, however, they multiplied rapidly, more especially in 1836, when upwards of forty were established in the spring.

259. On the renewal of the Bank Charter in 1833, it was determined to take off the vexatious restriction of preventing banking companies making their bills and notes for less than £50, payable on demand by their agents in London. And they were required to keep weekly accounts to be verified on oath, of the amount of their notes in circulation, and make a return to the Commissioners of Stamps of the average amount in circulation every quarter.

260. It was at this time, as we have already noticed, that the discovery made in 1822 by Mr. Joplin, that the Bank charter did not prohibit joint stock banks being formed in London, and carrying on their business on the method then adopted by the London bankers, attracted attention, and on the case being submitted to the law officers of the crown they confirmed this view. The flank of the monopoly of the Bank of England, as we may say, being turned in this extraordinary and unexpected manner, excited much consternation and alarm in that body, and they requested to have this omission rectified, but Lord Althorp decidedly refused anything of the sort, and told them that the bargain was that their privileges should remain as they were, and he would not consent to any extension of them. To remove all possible doubts on the subject, a declaratory clause was inserted in the Bank Charter Act, expressly permitting Joint Stock Banks to be formed, provided that they did not borrow, owe, or take up in England any sum or sums of money on their bills or notes payable on demand, or at any less time than six months from the borrowing thereof. This declaratory clause was not long in being acted upon; and soon after the Act was passed, measures were taken to constitute a joint stock bank in London. This was the London and Westminster Bank,

which has since been managed with such distinguished success.

261. The enormous difficulties which must have attended the successful organization of this great establishment may be conceived, when we remember that it was not formed under the Joint Stock Banking Act at all, which had no force within sixty-five miles of London, but that it was nothing but an ordinary partnership at common law. One of the least of the inconveniences of this was that it could not maintain an action at law for the most trivial debt, without enumerating all and each of the partners, and the slightest mistake in the spelling of a single name would at that time have vitiated any proceeding. This bank was the largest common law partnership which has existed in England; and all the London joint stock banks which were formed before the Act, Statute 1844, c. 113, are nothing but common law partnerships. The excessive inconvenience attending this state of things, led to a bill being brought into Parliament to enable the London and Westminster Bank to sue, and be sued, in the name of its chairman. This was warmly opposed by the Bank of England, and by Lord Althorp. Nothing could be more paltry than the reasons alleged by him in opposition to it, but he was beaten by a majority of 141 to 35. The government, however, had influence enough to have the bill thrown out in the Lords. The Bank being thus defeated, adopted the plan of making all contracts through the medium of trustees, and all the London joint stock banks had to adopt this plan, till the Joint Stock Banking Act of 1844. The other banks formed on a similar plan to the London and Westminster, are the London Joint Stock Bank, founded in 1836; the Union Bank in 1839; the London and County Bank in 1839; and the Commercial Bank in 1840.

262. When the impediments to the formation of joint stock banks beyond sixty-five miles from London were removed in 1826, they were left perfectly free as to the provisions of their deeds of constitution, their nominal and their paid-up capital, and all the details of management, nor were they obliged to publish any accounts. The public consequently were perfectly in the dark as to the magnitude and position of the bank, because they might advertise that their nominal capital was £1,000,000, divided into any number of shares. But no one had any means of knowing how many of the shares were taken and paid upon. Consequently, although the capital of the bank might be advertised in the papers as £1,000,000, no one could tell whether it had *bonâ fide* £500 paid up.

263. The first few joint stock banks having been apparently successful, naturally turned speculation into that channel. Numbers of new banks were started in all parts of the country, and many private bankers, fearing that the competition would be too powerful for them, united and formed themselves into joint stock banks. The rapid growth of these establishments led to much mismanagement, and many disasters, as might have been expected, and Committees of the House of Commons were appointed to inquire into the subject in 1836-7 and 1840-1. These reports are noticed in their proper place. (REPORTS, PARLIAMENTARY.)

264. The great abuses which were revealed in the course of these inquiries determined Sir Robert Peel, who was supposed to be the minister who *par excellence* understood banking, to bring in a bill to regulate the future constitution of these establishments. An Act containing many elaborate provisions for this purpose was accordingly passed, Statute 1844, c. 113. Fully admitting the enormous evils which this Act was intended to remedy, we will only say that a more unfortunate specimen of legislation, or one more entirely unsuitable to the nature of the business it related to, has not emanated from Parliament in recent times; and being found to be an unmitigated nuisance, without any counterbalancing advantages, it was wholly repealed in 1857.

265. When, in the course of less than thirty-five years, men had seen the whole of England shaken, from end to end, by those tremendous banking catastrophes, which seemed to be of periodical recurrence, they turned to the example of a country, where, though there had been commercial difficulties, there never had been any banking disasters at all comparable to those of England. Many private bankers, it is true, had failed, but except the Ayr bank, up to 1826, no joint stock bank in Scotland had failed. A very strong and general demand therefore arose for the Scotch system, many men thinking that because the Scotch banks were joint stock banks, that therefore joint stock banking was all that was requisite to attain security. When therefore the monopoly of the Bank was to a certain extent broken up in 1826, they expected to enjoy similar prosperity and safety to what Scotland had done, and when after an experience of fourteen years, they found that the joint banks were scarcely more secure, and equally ill managed as the private banks, great and bitter disappointment ensued, and joint stock banking became a bye word of reproach.

266. But in truth the causes of this are very evident. In Scotland the growth of banking had been extremely gradual. The first joint stock bank was founded in 1695, the second in 1727, the next in 1747, and except a few country ones, no new one of any magnitude was founded till 1810 (BANKING IN SCOTLAND). The consequence was that they gradually expanded with the increasing wealth of the country. They grew with its growth. Moreover, they correspondingly increased their capital. They acquired great experience, after committing many errors, which brought them to the brink of destruction. When the country required additional accommodation, it was done chiefly by throwing out branches from the parent establishments in the metropolis, so that they had all the experience and effective controul of the superior officers. At present, there are but fourteen distinct establishments in the country, but these have about 600 branches, extending into every village in the kingdom, so that banking accommodation is ample and abundant. But these are all independent institutions, depending upon their own wealth and resources, and except perhaps in the case of a sudden run upon one of them, never seeking assistance from each other. To suppose that the English system of joint stock banking bore any similarity to this would be a most egregious fallacy, and it was this difference chiefly which led to those disastrous consequences which so completely falsified the expectations

which were formed on the introduction of joint stock banking into this country.

267. There are in truth laws of nature in the industrial world, as well as in the moral and physical world; and a systematic attempt to violate these terminates in disaster, as surely and as certainly as a systematic disregard of the laws of nature in the physical world. It may be a long time before the mischief is developed, nay, for a considerable time, the results may appear to be beneficial, but in the long run the faulty principle is sure to produce its fruits.

Now the great law of nature in the industrial world is **FREE TRADE**. There is nothing more certain in all the range of science, than that exclusive privileges in commerce are great violations of natural right. Trading monopolies are moral crimes. When Parliament sold to the Bank of England the exclusive monopoly of Banking, it **SOLD WHAT IT HAD NO RIGHT TO SELL**. It had no more right to sell to one body of persons the right of carrying on the business of banking than it had to sell a monopoly of the business of bookselling, or leather dressing, or any other trade whatever. This monopoly was as unjust and as pernicious as any of those which the Commons of Elizabeth and James I. had rebelled against. For a considerable period everything seemed to go well. The Bank of England rendered unquestionable services to the State—so might any other trading corporation in its line—and any other corporation might have done the same, if they had been permitted. But nevertheless the principle of the monopoly was utterly vicious; and Time, the avenger, brought retribution at last. Injustice slumbers long, but it is sure to have its revenge at last. When in the natural course of events the commerce and wealth, and increasing spirit of enterprise, demanded an increased currency, and, save for this monopoly, powerful and wealthy companies would have been formed in the metropolis with ramifications all over the country, these unjustifiable privileges of the Bank prevented them. The Bank would neither supply this currency itself, nor permit any other powerful company to do so. The consequence was that the duty of supplying the necessary currency fell into the hands of any grocer, or tailor, or cheesemonger who chose to call himself a banker. Their power was unlimited. Then came 1793; then 1797; then the long series of disasters from 1810 to 1816; and then 1825.

268. When these terrible lessons effected a breach in the monopoly of the Bank it was only a partial one, a large portion still remained and exercised its deadly influence. When the new joint stock banks were formed they were merely local banks, all as dependent on the Bank of England as the private banks had been. The Bank maintained its exclusive privileges within sixty-five miles of the metropolis. And this was the inherent vice of the English system of joint stock banking. Instead of being independent banks, strong in their own resources, and able of their own strength to withstand a shock, they were carried on upon the most dangerous principle of rediscounting the bills they bought, as indeed they could not help doing; thus their very existence depended upon the Bank of England and the London bill brokers.

269. To suppose that this in any way resembled the Scotch system would be a gross fallacy; the English banks were forbidden to have establishments in the metropolis, which of all others is the best feature in the Scotch system. We have already pointed out, that capital has a tendency to accumulate in certain districts of the country, where there is no sufficient demand for it, and in others there is a greater demand for it than the district supplies. Now, in the English system, the bankers in the former part of the country remit money to London to be held in deposit for them, and in the latter the bankers remit their bills to be rediscounted, and have the money remitted. Now this legitimate operation, which is all done by one establishment in Scotland, requires three distinct and independent establishments to do it in England, and has given rise to that system of rediscounting which is so perilous and so objectionable. *But it is the natural result of the monopoly of the Bank.* Because if it had not been for that, these three establishments would all have been under one controul and management; under the present system they are three different and frequently conflicting interests.

270. And this great violation of natural justice manifested its evil consequences in many other striking ways. No man of common sense now disputes the great principles laid down by the Irish Committee of 1804, the Bullion Report of 1810, and the authors of the Act of 1819, that the paper currency must be governed by the exchanges. But long after the directors of the Bank of England had learnt this principle, and professed to govern her issues by the exchanges, they complained loudly and justly that their efforts to contract their own issues in an adverse exchange were counteracted by the issues of the country banks, and that as soon as they withdrew their paper, the vacuum was immediately filled up by country issues. The reason is very manifest. The Bank of England being situated at the heart of the exchanges, felt the danger, and saw the necessity of contracting her issues; the country banks being situated at a distance, knew and cared nothing about the exchanges; nay, they continually professed that their issues had nothing to do with the exchanges, and naturally, whenever they saw an opening, issued their paper.

271. Now, if it had not been for this iniquitous monopoly of the Bank, what would probably have been the condition of English Banking at the present day? There would have probably been thirty or forty great banks in the metropolis, each as great as the present Bank of England, with ramifications and branches all over the country. It would, in fact, have been the Scotch system on a much larger scale—one commensurate with the greater magnitude of the country. It would have been one great monetary nervous system. If this had been the case, they would have been acted upon immediately by the exchanges. London being the centre of the exchanges, any drain of gold would have caused immediate measures of counteraction, which would have been propagated and enforced by the parent establishment all over the country. The tremor of the exchanges would have been instantly felt in every village in the kingdom. Thus, under a natural system, any effect in London would have vibrated through all Eng-

land, and no country banks could possibly have acted in opposition to the ones in London. And this is the result to which the banking system of this country is slowly gravitating, and which it will ultimately assume. There is already one great bank which has its head office in London, though it does no business there, with considerably upwards of one hundred branches in the country. And a few other London banks have now branches in the provinces. And if this, which is the natural system, had been allowed to grow up from the beginning, we believe that these terrible banking catastrophes never would have occurred. If any crisis had occurred, they would have stood by and supported one another, but when any shock did occur under the unfortunate system, which has prevailed, the country banks have all depended on the Bank of England for their very existence.

272. We have already said that Sir Robert Peel's Joint Stock Banking Act, Statute 1844, c. 113, was found to be wholly unsuitable for the purposes it was intended, and totally repealed. This was done by the Act, Statute 1857, c. 49. The principal provisions of this Act are as follow:—

I. Every company formed under the Acts, Statute 1844, c. 113, or the Statute 1845, c. 76, were to register themselves before the 1st January, 1858, under the said Act, under severe penalties.

II. Any banking company, consisting of seven or more persons, having a capital of a fixed amount, divided into shares also of a fixed amount, and legally carrying on the business of banking before the passing of the Act, may register itself under this Act, and then all provisions of any Act, letters patent, or deed of settlement, constituting or regulating the company, as are inconsistent with the Joint Stock Companies' Acts, 1856, 1857, or with the said Act, are thereby repealed in regard to that company.

III. The above Banking Acts were then repealed as to any future companies, and as to existing companies, as soon as they were registered under this Act.

IV. Seven, or more, persons might register themselves as a company, other than a limited company, under this Act, provided the shares into which the capital of the company is divided, are not less than £100 each.

V. The number of partners permitted in a private bank is extended to ten.

273. The question of admitting the principle of limited liability into commercial partnerships in this country, has long been debated with much acrimony. The old theory of the law was expressed by Lord Eldon, who said that a man who entered into a commercial partnership, rendered himself liable "to his last shilling and his last acre" for the debts of the company. And this no doubt was true, as far as regards ordinary private partnerships. But many great companies had been formed and incorporated, in which the privilege of limited liability was specially conferred upon them. A principle may be good when applied to ordinary traders, who are supposed all to take an active part in the business, and to be each and all parties to every transaction. But in the case of great companies it is rather different. In them the great majority of the partners are specially de-

barred from all knowledge of the real nature of the transactions, which are expressly left in the hands of a small committee. Now, as there are many great objects in commerce which can only be carried out by means of a great company, and it was obviously desirable that they should be carried out, it has long been the practice in granting Acts to these companies, to limit the liability of the shareholders. This was done in the case of the Bank of England itself; in railway and other companies, and also, almost universally, in the charters granted to Colonial banks. But for a very long time the application of this principle to private partnerships in England was vehemently resisted. However, this resistance was overcome in 1855, and in that year an Act was passed, Statute 1855, c. 133, to permit the formation of joint stock companies with limited liability. However, although the principle was conceded as to other companies, joint stock banks were still most jealously excluded, on account of some unintelligible distinction between their trading and other trading. In the Joint Stock Banking Act of 1857, this exclusion was still strictly maintained. But the terrible examples of the failure of some joint stock banks in England in 1857, at last compelled the legislature to yield, and in 1858 an Act was passed to extend limited liability to banks.

The chief provisions of this Act, Statute 1858, c. 91:—

I. So much of the last-mentioned Statute of 1857 as prevented banks being formed on the principle of limited liability, was repealed.

II. All banks which issue promissory notes are subject to unlimited liability as far as regards their notes, for which they are to be liable, in addition to the sum for which they are liable to the general creditors.

III. Every existing banking company may register itself under this Act, upon giving thirty days' notice to each and all of its customers. Any customer to whom it may fail to send notice, retaining his full rights as before.

IV. All companies formed, or registering themselves, under this Act must, on the 1st February and 1st August in each year, post up in a conspicuous place in its head office, and each branch, a statement of its liabilities and assets, made up in a form prescribed by the Act.

274. Only one joint stock bank has hitherto given notice of its intention to avail itself of the provisions of the Act. A very wide difference of opinion prevails as to the expediency and justice of banking companies with limited liability. Whether the apprehensions which are felt upon the subject will be verified, it is needless to inquire. The Act is now a *fait accompli*, and how it will work, Time, the prover of all things, will shew. It is difficult, however, to understand how a principle which has been so conspicuously successful in the Bank of England, and three of the chartered Banks in Scotland, can be so extremely pernicious as many persons allege. But it is better not to speculate upon the subject.

Historical Sketch of the Rise and Progress of Banking in Scotland.

275. The Bank of Scotland is the first instance in the world of a private joint stock bank, formed

by private persons, for the express purpose of making a trade of banking, dependent on their own private capital, and wholly unconnected with the State. It differed in kind from any of the other banks existing at that time. The successful institution of the Bank of England led to a project being formed to establish a Bank in Scotland. A merchant of London, Mr. John Holland, was the author of the scheme, and he got eleven Scotch merchants to join him. They obtained an Act of the Scotch Parliament on the 17th July, 1695, authorizing the Crown to grant them a Charter of Incorporation. The principal provisions of this Act are as follows (*Acts of the Parliament of Scotland, Vol. IX. p. 494*):—

I. The joint stock was to be £1,200,000 Scots, or £100,000 sterling, and authorizes certain persons to receive subscriptions for not less than £1,000 Scots (£83 6s. 8d.), nor more than £20,000 Scots (£6,666 13s. 4d.) for each person, with a deposit of 10 per cent.

II. They were allowed to lend on real or personal security, at not more than 6 per cent.; and on failure of payment, to sell or dispose of the security publicly.

III. They were allowed to transfer their stock freely, or by will.

IV. No dividend to be made, but by consent of general meeting.

V. The joint stock to be free from all taxes affecting money for 21 years from that date.

VI. It was declared to be illegal for any other company to set up banking for 21 years.

VII. Various legal privileges were granted for the more speedy and effectual recovery of debts due to the Bank.

VIII. Prohibits any sum to be withdrawn from the joint stock.

IX. Prohibits the company, directly or indirectly, from using or employing the joint stock of the Bank, or any of its profits, in any other trade or commerce, except the trade of lending and borrowing money upon interest, and negotiating bills of exchange.

X. Prohibits the company from purchasing land, or heritages, or advancing money to the Government, upon the anticipation of any sums to be granted by Parliament, except only those particular ones upon which a credit of loan should be authorized by Parliament, under the penalty of forfeiting triple the amount, of which one-fifth to the informer.

XI. All foreigners who subscribed to the joint stock, were *ipso facto* naturalized to all intents and purposes. It was also provided that two-thirds of the stock must always belong to persons residing in Scotland. The Scotch subscription of £800,000 Scots (£66,666) was begun in November, and filled up at the end of December, 1695. The English subscription of £400,000 Scots (£33,333) was taken up in one day in London, a great part by Scotchmen. As the Scotch at that time were supposed to know nothing about banking, it was also provided that for a certain number of years the Governor and twelve Directors should be English, and the Deputy-Governor and twelve Directors should be Scotch. However, it was soon found that the Scotch were such good managers, that this arrangement was changed, and all the Directors were Scotch, and thirteen trustees were chosen

to manage the English business and affairs in London.

276. No sooner was the Bank fairly established, than in 1696, the African Company attempted to set up the trade of banking in defiance of the Bank's privilege. This was the celebrated Darien Company, which was organized by William Paterson, who was one of the founders of the Bank of England. Mr. Holland was governor of the Bank, but so little was it thought of, that it did not venture to vindicate its privileges against the African Company, for which there was a national phrenzy, and which afterwards ended so sadly. The Bank was obliged to content itself by strengthening its position by calling up two-tenths of its capital.

277. The African company soon, however, burnt its fingers with banking, as, in order to rival the Bank, they advanced their notes with great imprudence to several of their own shareholders and others, and sustained great losses, which made them stop. The Bank then began the business of exchanges, but finding that they could not compete with private merchants, gave it up. In 1696 they opened branches at Glasgow, Aberdeen, Dundee, and Montrose; but not finding them to pay, withdrew them. In May, 1698, the rivalry of the African company being at an end, the directors repaid the two-tenths of capital, last called up, as being more than necessary for their business.

278. The Bank at first received no deposits from the public; its business consisted in circulating its own notes upon the credit of the subscription that was paid in. These notes were for £100, £50, £20, £10, and £5. It is disputed when they began to issue £1 notes, for while a pamphlet, published in 1728 on their behalf, says that they began to issue them in January, 1699-1700, Mr. Kinnear, a director of the Bank, stated to the Committee of the House of Commons that, though many proposals were made to them to circulate "tickets" or "tokens" of £1, they had always hesitated to adopt so novel an experiment till 1704. Which authority is right we have no means of deciding. In 1701 a great fire destroyed the Parliament Close, in which the bank was, but the cash and all the effects were safely removed into the Castle by the Earl of Leven, who was governor of both.

279. In December, 1704, soon after, as it would appear by one account, that they had issued £1 notes, a rumour was spread all over the kingdom that the Privy Council were going to raise the value of the coin, which caused a run upon the Bank, and at last it was obliged to stop payment. A meeting of the proprietors was held, who declared that all their notes should bear interest until they were paid. The directors also requested the Privy Council to appoint a Committee to examine their books. They reported that the Bank was in the most sound and flourishing condition, and their notes then passed without depreciation. The directors made a call of one-tenth, and in less than five months paid off all their notes with interest.

280. By the Act of Union between England and Scotland, it was stipulated that the coinage of Scotland should be reduced to uniformity with that of England, and the loss or deficiency to private individuals made good out of the equivalent

fund. (Art. xv.) The Bank assisted this operation by receiving all the old money and giving their own notes, or new money in return, receiving a commission of a half per cent. This was successfully accomplished without any disturbance.

281. In September, 1715, the rebellion broke out, which immediately caused a run upon the Bank, the directors themselves urging it on, that the money might not fall into the hands of the insurgents. They then stopped, retaining all the money belonging to the Crown, which was about £30,000, which they lodged in the Castle. They then gave notice that all their notes should bear interest, as had been done in 1704. In May, June, and July, 1716, they were all called in and paid. In this year the monopoly of banking granted by their charter expired, and no steps were taken to renew it.

282. It appears that up to this time the profits of the Bank were enormous. A rival pamphlet states that the dividend was 35, 40, and 50 per cent., and accordingly, as we may well suppose, these profits attracted rivals. A cry was got up against them, that they were too niggardly in advancing loans, that they exacted too high interest, and that the concern was altogether too small.

283. In December, 1719, proposals were made to them to unite with the proprietors of the equivalent fund, to the amount of £250,000, so as to increase the capital to £350,000, and share the annual grant of £10,000 (being four per cent. on the amount) in the proportion of two-sevenths, and five-sevenths. But, as the Bank had only one-tenth paid up, the proprietors of the equivalent fund were to draw out of the Bank, as might be agreed upon, nine-tenths, or £225,000, in notes, so that there might then be a capital of £35,000 to bank upon.

284. The Bank replied that:—1st, They had no power by their Act to amalgamate with the equivalent, as they were limited to £100,000 sterling; 2ndly, That they would not unite at par with the equivalent at four per cent., while their own stock was worth at least ten per cent.; 3rdly, That the stock of the Bank was large enough for the country; and if they wanted it enlarged, they could do it themselves by calls on their proprietors. They also gave other calculations, shewing the absurd nature of the proposals.

285. No sooner were the advances of the equivalent proprietors repuled, than another set of persons began another rough wooing, to thrust themselves into a union with them. The *Edinburgh Society*, formed on a pretended plan of insuring against fire, tried to force a junction with them, and being defeated in this, they tried to get up a run upon them. They got together £8,400 of their notes, and spread a report of a run. This, however, failed; and shortly after the Bubble Act passed, by which the Society found that they were an illegal company, and were obliged to dissolve themselves. The London Assurance Company then "proposed" to them, but met with a similar refusal.

286. At the time of the Union a considerable number of persons, both civil and military, were creditors of the State, and the equivalent sum stipulated in the Act of Union was not sufficient

to discharge their claims. In 1714, they obtained an Act of Parliament, constituting their debts, but no Parliamentary provision was made to pay it till 1719, when £10,000 was set apart for that purpose, to be paid annually, in preference to all other claims. The Act of 1719 empowered His Majesty, by letters patent, to incorporate the proprietors of this debt into a body politic and corporate—a *MORRIS*—with powers to do and perform all matters appertaining to them to do, touching or concerning the said capital sum; and the yearly fund, payable in respect thereof, as His Majesty by the said letters patent should think fit to grant. In pursuance of this Act, the proprietors, who included persons in all ranks of the State, were incorporated in 1724; and by the same letters patent, the King agreed and covenanted with the corporation that he would, from time to time, grant them such other powers, privileges, and authorities, as he lawfully might.

287. This was the body of persons whom we have seen attempt to force themselves upon the Bank of Scotland. When they were repulsed by that body, they determined to apply to the King to grant them powers of Banking in Scotland, in pursuance of his agreement to grant them any powers that he lawfully might. They accordingly petitioned him to grant them powers to bank in Scotland, limited to such of the company as should on or before Michaelmas, 1727, subject their stock to the trade of banking. This petition came to the knowledge of the Bank in 1726, and of course they did everything they could to oppose it. A cry was got up against them that they were hostile to the House of Hanover—that they charged too high interest for their loans—that they were too particular in the securities they required—that they would not lend on their own stock, and other things. To all these various charges, they, or a friend for them, elaborately replied, and they said that such a thing as two banks in one country was never heard of—that if Scotland had two England should have ten. By this time they had called up 3-10ths of their stock, or £30,000, and they alleged that that was sufficient to circulate all the credit that could be required in Scotland. They had some sound views on the subject, "For the quota of credit in a banking company must be *proportioned to the stock of specie in the nation*, learned and understood by long experience, and not extended to a capital stock subscribed for, which cannot in the least help to support the company's credit if the specie of the nation decay."

288. The call that had been made was partly paid up in the Bank's own notes, just as we have seen that the subscription to the new stock of the Bank of England was partly paid in its own depreciated notes. An outcry was made about this, but it was well answered; "But the objectors do not at all consider this point. For the payments are many of them made in specie, and bank notes are justly reckoned the same as specie when paid in on a call of stock, *because when paid in, it lessens the demand on the Bank*." He also says, "A certain stock of specie circulating in the country is needful for currency of payments in markets, and amongst the meaner sort of people, bearing a due proportion to what is running on paper credit upon the faith of the Banking Company." Excellent doctrines, in strict accordance

with the principles which made the Parliament of Scotland reject the plausible and delusive schemes of Dr. Chamberlen and John Law, for issuing paper based upon land.

289. Notwithstanding the opposition of the Bank of Scotland, the charter with powers of banking was granted to the Equivalent Company on the 31st May, 1727. The king's death on the 11th June following delayed it for a short time, but it was sealed on the 8th July. The Company took the name of the *ROYAL BANK*, and commenced business on the 8th December, 1727, with a capital stock of £151,000.

290. Granting that all the charges against the old bank were futile and groundless, we may well rejoice that the monopoly of the Bank of Scotland was not permitted to subsist. A writer, who professes to be independent of either bank, touched the right point in reply to the statement put forth on behalf of the old bank; "The power of monopolies is, I believe, an exploded doctrine. * * * Did ever any nation make an exclusive bank perpetual, or for longer than twenty-one years? Or if such an instance can be given, was the measure right? * * If the old bank should reply—We are in possession, what have we done to deserve to have our possession disturbed? The answer upon that abstract question is plain by another question—*What have we, the other subjects, done to be secluded? or by what law are we secluded from the advantages you enjoy?*" The writer then says, after comparing the rival companies, "The obvious reflection which arises from comparing these two is, that these candid and fair dealers have also dealt profitably for themselves, (as it is but reasonable that they should,) they have taken very good payment for all the services they have done to the nation, and *what title they, or any other set of men, have to an hereditary and indefeasible monopoly of banking is hard to understand.* * * * As ready as our Parliament was at the Union to accommodate petitioners, a *perpetual monopoly of banking was a thing so manifestly pernicious, that no private men could have the assurance to aim at it, far less could any Parliament be so unthinking as to grant it.*" On the south of the Tweed there was found a Parliament so unthinking as to grant a monopoly of banking to a single company for upwards of 130 years, and the consequences fully justified the opinions of the sagacious Scot.

291. The directors of the company were authorized to make calls upon the proprietors, to the amount of one half of their stock, but there were no means given of enforcing the calls beyond retaining the accruing dividends until the call was satisfied. They got, however, great assistance by having £20,000 deposited with them by the Crown. This was sent down by the government, to be placed out at interest, to assist the fisheries and manufactures, and several of the directors of the Royal Bank, being among the trustees for managing the fund, voted that it should be placed in their own bank. Their charter also granted them unlimited powers of issue. The alarm and jealousy created by the establishment of the new bank happily soon wore off, as it was discovered that so far from injuring it, the inevitable consequence followed that enlarged experience in commerce would enable us to predict; it increased the prosperity of both of them, so that the stock

of the Bank of Scotland rose to 400 per cent., and that of the Royal Bank also very high.

292. The Royal Bank had only been in existence two years, when it invented a further development of the system of banking, which, by the unanimous testimony of all persons who know that country, has done more to develop its resources, and promote its agricultural and commercial prosperity, than any other cause whatever. This is the system of *cash credits*, or *cash accounts*. This system deserves the most attentive consideration, because it is entirely of the nature of *accommodation paper*, which has fallen into such disrepute in England, from the enormous abuse of it that has taken place. We shall not interrupt our present narrative by describing the system here, but refer to it elsewhere (*CASH CREDIT*). In 1731, the Bank of Scotland tried again to establish branches at Glasgow, Aberdeen, and Dundee, but after a trial of two years was obliged to discontinue them, and the plan was not tried again till 1774.

293. The unlimited power of issuing "promises to pay," placed in the hands of two hostile parties, must naturally have led to great over-issues, before they acquired sufficient experience. To protect themselves from the consequences of these over-issues, as well as from the attacks of each other, the Bank of Scotland in 1730 introduced a clause into their notes, making them payable at the option of the directors of the Bank, at the end of six months, with a sum equal to the legal interest from the time of demand to that time. This practice was adopted by all the other banking companies, for the manifest advantages of banking were so strikingly displayed, that after the expiry of the monopoly of the Bank of Scotland, banking companies started up in all directions, and inundated the country with notes. When the holders of the notes demanded payment for them, the directors of the companies threatened that they would take advantage of the optional clause, unless the demanders would content themselves with a part of what they wanted. Moreover, as there was no restraint upon the amount of their notes, many of the companies issued ones for 10s., 5s., and even lower than that. In Perthshire there were notes for 1s., and even for 1d., and the Perth Banking Company was founded partly to put an end to this nuisance. The inevitable consequence followed; these paper notes drove all the gold and silver out of the country, and the exchange with London fell. Adam Smith says, "While the exchange between London and Carlisle was at par, that between London and Dumfries would sometimes be 4 per cent. against Dumfries, though this town is not thirty miles distant from Carlisle. But at Carlisle bills were paid in gold and silver, whereas at Dumfries they were paid in Scotch bank notes, and the uncertainty of getting those bank notes exchanged for gold and silver coin had thus degraded them 4 per cent. below the value of that coin." And this was at a time when, owing to the degraded state of the English coin, the foreign exchanges were adverse to England, and the market price of gold was £4 per ounce, so that the whole depreciation of the note was about 6½ per cent. Thus we see that at this time, when the Scotch bank notes were at a discount, they were in fact *inconvertible*, or only payable six months

after demand, a circumstance of great importance, and one which must be especially observed, as this was one of the instances alluded to by Sir Robert Peel in introducing his bank Act of 1844.

294. The manifest consequence followed. All the gold left the country, as it always does from excessive paper issues, and the banks were all obliged to employ agents in London, constantly collecting money for them, at an expense of seldom less than one-and-a-half to two per cent. Adam Smith says, "This money was sent down by the waggon, and insured by the carriers at an additional expense of three quarters per cent., or 15s. on the £100. Those agents were not always able to replenish the coffers of their employers so fast as they were emptied. In this case the resource of the banks was draw upon their correspondents in London bills of exchange to the extent of the sum they wanted. When those correspondents afterwards drew upon them for the payment of this sum, together with the interest and commission, some of those banks, from the distress into which their excessive circulation had thrown them, had sometimes no other means of satisfying this draught but by drawing a second set of bills, either upon the same or upon some other correspondents in London, and the same sum, or rather bills for the same sum, would in this manner make more than two or three journeys, the debtor bank always paying the interest and commission upon the whole accumulated sum. Even those Scotch banks which never distinguished themselves by their extreme imprudence were sometimes obliged to employ this ruinous resource.

"The gold coin which was paid out either by the Bank of England or by the Scotch banks, in exchange for that part of their paper which was over and above what could be employed in the circulation of the country, being likewise over and above what could be employed in that circulation, was sometimes sent abroad in the shape of coin, sometimes melted down and sent abroad in the shape of bullion, and sometimes melted down and sold to the Bank of England, at the high price of £4 an ounce. It was the newest, the heaviest, and the best pieces only, which were carefully picked out of the old coin, and either sent abroad or melted down at home, and while they remain in the shape of coin, those heavy pieces were of no more value than the light, but they were of more value abroad, or when melted down into bullion at home." This passage well illustrates the quotation we have given from Aristophanes (*ΑΡΙΣΤΟΦΑΝΗΣ*), and is admirably illustrated by what took place in France during the existence of the Assignats, and in England during the suspension of cash payments.

295. At this period the Scotch banks had got themselves into a very alarming position, from their ignorance of the true principles of regulating a paper currency, as well as of the effect of an excessive issue of paper in depressing the exchanges, and causing an export of gold, and not perceiving that, while in this state, bringing gold into the country was like pouring water into a sieve, or like the toil of the Danaides. They had been far too prodigal in granting cash credits, and allowing them to be converted into dead loans, without observing the rules that were specially applicable to them. And everything seemed

to show that matters would get worse, as the annihilation of the last Jacobite rebellion in 1746 had freed the country for ever from the fear of internal disturbances, and numerous other companies were forming to add to the currency, which was already superabundant.

296. United in a common danger, the two principal banks agreed to combine their influence, and obtain an Act to remedy this, and the Statute 1765, c. 49, was passed, suppressing all notes under 20s., and prohibiting those to be issued with the optional clause, and enacting that all such notes should be payable to the bearer on demand. The banks also curtailed their cash credits very extensively, and called up fresh capital. Owing to these combined measures, silver immediately returned into circulation, the value of the Scotch currency was restored to par, and from that time to the present, although the issues of bank notes were absolutely free until 1845, the Scotch currency HAS NEVER VARIED FROM PAR.

297. The Bank of Scotland and the Royal Bank continued to be the only chartered banks till 1746, when the British Linen Company was incorporated, for the purpose of carrying on the linen manufacture, and banking in connection with it. This company soon found it expedient to discontinue the linen part of their business, and confine themselves to banking, and it has since become one of the most powerful and wealthy of the Scotch banks, but it did not introduce any new feature into Scotch banking.

298. This is the first occasion, that we are aware of, on which that abominable system of accommodation paper, which is the sure precursor of mercantile convulsion, was fully manifested. The Scotch banks seem to have learnt a very wholesome lesson, and contracted their issues more within the bounds of prudence. This was a source of prodigious annoyance to a vast number of speculators and adventurers. The prudence which the banks exercised in discounting, not only alarmed, but enraged these projectors to the highest degree. "Their own distress," says Adam Smith, "of which this prudent and necessary reserve of the banks was no doubt the immediate occasion, they called the distress of the country; and this distress of the country they said was altogether owing to the ignorance, pusillanimity, and bad conduct of the banks, which did not give a sufficiently liberal aid to the spirited undertakings of those who exerted themselves in order to beautify, improve, and enrich the country. It was the duty of the banks, they seemed to think, to lend for so long a time, and to as great an extent, as they might wish to borrow. The banks, however, by refusing in this manner to give more credit to those, to whom they had already given a great deal too much, took the only method by which it was now possible either to save their own credit, or the public credit of the country.

"In the midst of this clamor and distress, a new bank was established in Scotland, for the express purpose of relieving the distress of the country. The design was generous, but the execution was imprudent; and the nature and causes of the distress which it meant to relieve, were not, perhaps, well understood. This bank was more liberal than any had ever been, both in granting

cash accounts, and in discounting bills of exchange. With regard to the latter, it seems to have made scarce any distinction between real and circulating bills, but to have discounted all equally. It was the avowed principle of this bank to advance, upon any reasonable security, the whole capital which was to be employed in those improvements of which the returns are the most slow and distant, such as the improvements of land. To promote such improvements was even said to be the chief of the public spirited purposes for which it was instituted. By its liberality in granting cash accounts, and in discounting bills of exchange, it no doubt issued great quantities of its bank notes. But those bank notes being, the greater part of them, over and above what the circulation of the country could easily absorb and employ, returned upon it, in order to be exchanged for gold and silver, as fast as they were issued. Its coffers were never well filled. The capital, which had been subscribed to this bank at two different subscriptions, amounted to £160,000, of which 80 per cent. only were paid up. This sum ought to have been paid in at several different instalments. A great part of the proprietors, when they paid in their first instalment, opened a cash account with the bank; and the directors, thinking themselves obliged to treat their own proprietors with the same liberality with which they treated all other men, allowed many of them to borrow upon this cash account, what they paid in upon all their subsequent instalments. Such payments, therefore, only put into one coffer what had the moment before been taken out of another. But had the coffers of this bank been filled ever so well, its excessive circulation must have emptied them faster than they could have been replenished by any other expedient, but the ruinous one of drawing upon London, and when the bill became due paying it, together with interest and commission, by another draught upon the same place. Its coffers having been filled so very ill, it is said to have been driven to this resource, within a very few months after it began to do business. The estates of the proprietors of this bank were worth several millions, and by their subscription to the original bond, or contract of the bank, were really pledged for answering all its engagements. By means of the great credit which so great a pledge necessarily gave it, it was, notwithstanding its too liberal conduct, enabled to carry on business for more than two years. When it was obliged to stop, it had in circulation about £200,000 in bank notes. In order to support the circulation of those notes, which were continually returning upon it, as fast as they were issued, it had been constantly in the practice of drawing bills of exchange upon London, of which the number and value were continually increasing, and when it stopped, amounted to upwards of £600,000. This bank therefore had, in little more than the course of two years, advanced to different people upwards of £800,000 at 5 per cent. Upon the £200,000 which it circulated in bank notes, this 5 per cent. might perhaps be considered as clear gain, without any other deduction besides the expense of management. But upon upwards of £600,000, for which it was continually drawing bills of exchange upon London, it was paying in the way of interest and commission, upwards of 8 per cent., and was consequently los-

ing more than 3 per cent. upon more than three-fourths of all its dealings.

"The operations of this bank seem to have produced effects quite opposite to those which were intended by the particular persons who planned and directed it. They seem to have intended to support the spirited undertakings, for as such they considered them, which were at that time carrying on in different parts of the country, and at the same time, by drawing the whole banking business to themselves, to supplant all the other Scotch banks, particularly those established at Edinburgh, whose backwardness in discounting bills of exchange had given some offence. This bank, no doubt, gave some temporary relief to those projectors, and enabled them to carry on their projects for about two years longer than they could otherwise have done. But it thereby only enabled them to get so much deeper into debt, so that when ruin came, it fell so much the heavier both upon them, and upon their creditors. The operations of this bank, therefore, instead of relieving, in reality aggravated, in the long run, the distress, which those projectors had brought both upon themselves and upon their country. It would have been much better for themselves, their creditors, and their country, had the greater part of them been obliged to stop two years sooner than they actually did. The temporary relief, however, which this bank afforded to those projectors proved a real and permanent relief to the other Scotch banks. All the dealers in circulating bills of exchange, which those other banks had become so backward in discounting, had recourse to this new bank, where they were received with open arms. Those other banks were enabled to get very easily out of that fatal circle, from which they could not otherwise have disengaged themselves, without incurring a considerable loss, and perhaps, too, even some degree of discredit.

In the long run, therefore, the operations of this Bank increased the real distress of the country, which it meant to relieve; and effectually relieved from a very great distress those rivals whom it meant to supplant.

"At the first setting out of this bank, it was the opinion of some people that how fast soever its coffers might be emptied, it might easily replenish them, by raising money upon the securities of those to whom it had advanced its paper. Experience, I believe, soon convinced them that this method of raising money was by much too slow to answer their purpose; and that coffers, which were originally so ill filled, and which emptied themselves so very fast, could be replenished by no other expedient, but the ruinous one of drawing bills upon London, and when they became due, paying them by other draughts upon the same place, with accumulated interest and commission. But though they had been able by this method to raise money as fast as they wanted it, yet, instead of making a profit they must have suffered a loss by every such operation; so that, in the long run, they must have ruined themselves as a mercantile company, though perhaps not so soon as by the more expensive practice of drawing and redrawing. They could still have made nothing by the interest of the paper, which being over and above what the circulation of the country could absorb and employ, returned upon them in order to be exchanged for gold and silver, as fast

as they issued it; and for the payment of which, they were themselves continually obliged to borrow money. On the contrary, the whole expense of this borrowing, of employing agents to look out for people, who had money to lend, of negotiating with those people, and of drawing the proper bond or assignment, must have fallen upon them, and have been so much clear loss upon the balance of their accounts. The project of replenishing their coffers in this manner, may be compared to that of a man who had a water pond, from which a stream was continually running out, and into which no stream was continually running, but who proposed to keep it always equally full, by employing a number of people to go continually with buckets to a well, at some miles' distance, in order to bring water to replenish it.

"But though this operation had proved not only practicable, but profitable to the Bank, as a mercantile company, yet the country could have derived no benefit from it; but, on the contrary, must have suffered a very considerable loss by it. This operation could not augment in the smallest degree the quantity of money to be lent. It could only have erected this bank into a sort of general loan office for the whole country. Those who wanted to borrow must have applied to this bank, instead of applying to the private persons who had lent it their money. But a bank which lends money, perhaps, to 500 different people, the greater part of whom its directors can know very little about, is not likely to be more judicious in the choice of its debtors than a private person, who lends out his money among a few people, whom he knows, and in whose sober and frugal conduct he thinks he has good reason to confide. The debtors of such a bank as that whose conduct I have been giving some account of, were likely, the greater part of them, to be chimerical projectors, the drawers and redrawers of circulating bills of exchange, who would employ the money in extravagant undertakings, which, with all the assistance that could be given them, they would probably never be able to complete, and which, if they should be completed, would never repay the expense which they had really cost, would never afford a fund capable of maintaining a quantity of labor equal to that which had been employed about them. The sober and frugal debtors of private persons, on the contrary, would be more likely to employ the money borrowed in sober undertakings, which were proportioned to their capitals, and which, though they might have less of the grand and the marvellous, would have more of the solid and the profitable, which would repay with a large profit whatever had been laid out upon them, and which would thus afford a fund capable of maintaining a much greater quantity of labor than that which had been employed about them. The success of this operation, therefore, without increasing in the smallest degree the capital of the country, would only have transferred a great part of it from prudent and profitable, to imprudent and unprofitable undertakings."

299. This bank, to which this long extract refers, was the celebrated Ayr Bank, which was founded to remedy the alleged distress caused by the niggardly conduct of the existing banks. It was started by a company which comprised

the Duke of Hamilton and many other landed proprietors of immense wealth, and it was based on the fatal delusion that, because the capital and property of its proprietors was undoubted, it might therefore issue notes to any amount without depreciation. This was exactly John Law's theory of money, and this bank is a pregnant instance of its fallacy. The pamphlet we have already quoted from, relating to the Bank of Scotland, had already seen and denounced this fallacy, for it said, with perfect truth and wisdom, *that no matter what the capital of a banking company is, the paper credit in the shape of notes, which it can circulate, bears a certain proportion to the existing specie in the country, and this can only be ascertained by experience.* Now, this strikes at the root of John Law's whole theory, because that is based upon the fallacy that bank notes only *represent* property, and therefore may be multiplied to the extent of any existing property without depreciation—a theory whose results may be seen in the history of the Assignats (ASSIGNATS), whereas the real truth and fact is, that bank notes do not *represent* any property whatever, but are themselves independent entities, and can only maintain their value, like any other independent entities, by bearing a certain proportion to the specie (BANK NOTE). Nor is Adam Smith correct in what he says, that the operations of banking do not increase the capital of the country; there is no more delusive fallacy than this in Political Economy; it is just because banking *does* increase capital so rapidly that it is so dangerous. It is just for the very reason that bank credits, whether in the form of promissory notes, or entries and cheques, perform exactly the same functions, and are in all respects equivalent to the creation of so much additional capital, that they so fatally depreciate the value of the existing specie, if they are multiplied too rapidly. However, this is so fully explained under BANK, BANK NOTE, and DEPOSIT, that we shall not say more about it here. The fatal error of the Ayr Bank, and of Law's theory is this, *not* that capital might be increased by banking, but in not perceiving the *true natural limits to the increase*—in not seeing that the true limits were to be found in its maintaining an equality of value with gold and silver. This unfortunate concern was supposed to have been insolvent within a fortnight after it commenced business. Its mistaken course inflated speculation; the accommodation bill system, which has been the cause of every commercial crisis from that time to this, promoted by this bank and other speculators, formed the exact antetype of the proceedings of the Western Bank, and its herd of adventurers in 1857. The exports in 1771 and 1772 rose to a height they had never done before, and which they did not again equal till 1787. While commerce was in this apparently prosperous, but in reality bloated and diseased condition, the puncture of a pin was sufficient to make it collapse. On the 10th June, 1772, a partner in one of the greatest banking firms in London, Neale & Co., decamped with £300,000, having been deeply engaged in speculating in the funds. This man, named Fordyce, was a Scotchman, and had a large Scotch connection; these were blown upon by the failure of their London agent, and a complete commercial

panic began. The Ayr Bank had branches in Edinburgh and Dumfries, and a run began upon it on the 17th June, 1772, in Edinburgh, and it stopped payment on the 25th, along with a crowd of speculators. The whole of Scotland was shaken to its foundations. There had been no disaster similar to it since the Darien scheme, and there has been none since like it, until the failure of the Western Bank. The credit even of the other banks was almost gone. The person who was the immediate cause of the collapse of the rotten bubble of credit being a Scotchman, the London papers teemed with tirades of abuse of everything Scotch.

300. A writer in one of the papers says that the accommodation bill system first sprung up then. In the *Public Advertiser*, July 8, 1772, it says in a letter, "Banking Companies have appeared in almost every corner of the kingdom, and Bills of Exchange have been multiplied by a new method called *Swivelling*, without any solid transaction." Adam Smith, however, places it earlier; speaking of the refusal of the banks to discount to the extent the speculators wished, he says, "Some of those traders had recourse to an expedient, which for a time served their purpose, though at a much greater expense, yet as effectually as the utmost extension of bank credits could have done. This expedient was no other than the well known shift of drawing and redrawing; the shift to which unfortunate traders have sometimes recourse when they are upon the brink of bankruptcy. *The practice of raising money in this manner had long been known in England*, and during the course of the late war, when the high profits of trade afforded a great temptation to over-trading, is said to have been carried on to a very great extent. From England it was brought to Scotland, where in proportion to the very limited commerce and to the very moderate capital of the country, it was soon carried on to a much greater extent than it ever had been in England. The practice of drawing and redrawing is so well known to all men of business, that it may perhaps be thought unnecessary to give an account of it." And yet a respectable witness, Mr. Latouche, deputed by the private bankers of Dublin to give evidence before the Committee of the House of Commons in 1858, says that the accommodation bill system "arose from a new element, which, when the Act of 1844 was made, did not exist at all, and that was the immense amount of deposits in the hands of Joint Stock Banks paying interest!"

301. We may also notice a fact that was asserted at this time, especially as it has been brought up again in the recent crisis in Scotland. It was generally, if not universally supposed in Scotland that three of the chartered banks, the Bank of Scotland, the Royal Bank, and the British Linen Company, were banks with limited liability. It is even positively stated so in the Reports of both Houses of Parliament, in 1826. Recently, however, this has been called in question with regard to the two latter banks. Mr. Hodgson, a Director of the Bank of England, in giving evidence before the late Committee, says, Q. 3575, "The only bank existing in Scotland with limited liability is, I believe, the Bank of Scotland; there is, I believe, a very great doubt about the Royal Bank of Scotland, and the British

Linen Company, having a limited liability; I believe that the Bank of Scotland has a perfect charter, as perfect as that of the Bank of England; I believe that though the other two banks, which I have named, have charters conferring certain privileges, it is very much doubted whether in those privileges limited liability is included. *Mr. Cayley*—Is there not a general impression in Scotland that they are banks of limited liability?—There has been that impression not only in Scotland, but in England, and amongst their own customers; but of late that opinion has been very much shaken, and I believe that the opinion of the Lords of Session now is, that those banks have not limited liability." However, there is in the *Public Advertiser* of the 22nd June, 1772, a letter from an apparently well informed person, stating that the proprietors of the Bank of Scotland are fully liable for all its debts, and that their property is worth several millions, and urging that as a strong reason why the Bank of England should come forward to their assistance. Now, if this be so, it will certainly be a great surprise to common opinion. May it be long before the question in respect to either Bank has any practical importance.

302. In 1774, by the Statute of that year, c. 32, the Bank of Scotland was authorized to double its capital stock, and the limit which any shareholder might hold was raised to forty shares. In this year the Bank began successfully to establish branches, which has since become so marked a feature in Scotch banking. In 1784, by the Statute of that year, c. 12, the capital of the Bank was raised to £300,000, and all restrictions as to the amount of stock any proprietor might hold, taken off. In 1792, by the Statute of that year, c. 25, the capital was raised to £600,000, and by Statute, 1794, c. 19, to £1,000,000, and by Statute, 1804, c. 23, to £1,500,000, of which £1,000,000 has been called up, and at which it still remains.

303. The next great commercial crisis was in 1793. This also extended to Scotland. This was attributed by the best contemporary writers to the inordinate multiplication of the country bankers, and the commencement of the revolutionary war. Three-fourths of the country bankers in England were greatly shaken. The Bank of England refused all assistance, in spite of all solicitations made to it, for which it is severely blamed by Sir Francis Baring (*BARING, SIR FRANCIS*), and the Bullion Report (*BULLION REPORT*). When the Bank adopted this perverse course, universal failure seemed imminent. Sir John Sinclair remembered the precedent of 1697, when Montague had sustained public credit by an issue of Exchequer Bills, and thought that a similar plan might be followed in this crisis. Mr. Pitt desired him to propose a scheme for the purpose, which he presented on the 16th April. A committee of the House of Commons was immediately appointed. In the meantime a director of the Royal Bank of Scotland came up, with the most alarming news from Scotland. The public banks were wholly unable, with due regard to their own safety, to furnish the accommodation necessary to support commercial houses, and the country bankers. That unless they received immediate assistance from government, general failure would ensue. Numerous houses, who

were perfectly solvent, must fall, unless they could obtain temporary relief. Mr. Macdowall, M.P., for Glasgow, stated that the commercial houses and manufactories there, were in the greatest distress, from the total destruction of credit. That the distress arose from the refusal of the Glasgow, Paisley, and Greenock banks to discount, as their notes were poured in upon them for gold. This panic was allayed by the Government consenting to issue small exchequer bills, and by the activity of Sir John Sinclair, in getting money sent down to Glasgow, in anticipation of these exchequer bills. (*CRISIS, COMMERCIAL.*)

304. In 1797, when the Bank Restriction Act was passed, all banking companies and bankers in Scotland, were allowed to issue notes payable to bearer on demand, for any sum under 20s.; but though the Bank of Ireland was ordered to suspend cash payments, the Scotch banks were never allowed, or compelled to do so, and the Scotch banks continued during the whole revolutionary war liable to pay cash on demand.

305. The next occurrence that we may mention, as it was regarded as a political event, was the foundation of the Commercial Bank in 1810. This was at the time when the high Tory régime was in its highest and palmiest state, and the banks were alleged to carry their politics into their business. The Liberal party then determined to found an opposition bank, which was named the Commercial, which has attained as great an eminence as any of the older ones in public estimation. Its capital, as yet paid up, is £600,000, which, its directors very recently gave the satisfactory assurance to its shareholders, is perfectly intact, and in addition to that, it has £400,000 of accumulated profits as a reserve fund. This bank subsequently obtained a charter, but the liability of its shareholders is specially declared unlimited.

306. In 1818, it being found that many foreigners availed themselves of the privilege of naturalization by purchasing stock in the Bank of Scotland, this clause in their original Act was repealed.

307. The long and dreadful catalogue of banking failures in England, chiefly owing to the monopoly of the Bank of England, and which were attributed to the issues of the £1 notes of the country bankers, made the ministry of 1826 desirous to abolish them in Scotland and Ireland, at the same time as they did those of England. But this raised such a ferment in the country, that the government consented that committees of both Houses should be appointed to inquire into the matter. The result was so eminently favorable to the Scotch banking system, that no further interference was attempted. "With respect to Scotland," says the report of the Lords, "it is to be remarked that during the period from 1766 to 1797, when no small notes were by law issuable in England, the portion of the currency of Scotland in which payments under £5 were made, continued to consist almost entirely of notes of £1 and £1 1s., and that no inconvenience is known to have resulted from this difference in the currency of the two countries. This circumstance, among others, tends to prove that uniformity, however desirable, is not indispensably necessary. It is also proved by the evidence, and by the documents, that the banks of Scotland,

whether chartered or joint stock companies, or private establishments, have for more than a century exhibited a stability which the committee believe to be unexampled in the history of banking; that they supported themselves from 1797 to 1812, without any protection from the restriction by which the Bank of England, and that of Ireland, were relieved from cash payments; that there was little demand for gold during the late embarrassments in the circulation; and that in the whole period of their establishment, there are not more than two or three instances of bankruptcy. As during the whole of this period a large portion of their issues consisted almost entirely of notes not exceeding £1, or £1 1s., there is the strongest reason for concluding that, as far as respects the banks of Scotland, the issue of paper of that description has been found compatible with the highest degree of solidity; and that there is not, therefore, while they are conducted upon their present system, sufficient ground for proposing any alteration, with the view of adding to a solidity which has so long been sufficiently established." The report of the Commons was also adverse to any legislative interference with Scotch banking.

308. No interference with Scotch banking took place till 1845, when Sir Robert Peel having carried his Bank of England Charter Act, and Joint Stock Banking Act, with scarcely a breath of opposition, determined to regulate those of Scotland and Ireland, as well. The principal provisions of this Act, Statute 1845, c. 38, are as follows:—

I. All persons had been prohibited by the Statute 1844, c. 32, from commencing to issue notes after the 6th May, 1844, in the United Kingdom, and all such persons in Scotland as were lawfully issuing their notes between the 6th May, 1844, and the 1st May, 1845, were to certify to the Commissioners of Stamps and Taxes, the name of the firm, and the places where they issued such notes.

II. The commissioners were to ascertain the average number of such bankers' notes in circulation during the year preceding the 1st May, 1845.

III. Such bankers were authorized to have in circulation an amount of notes, whose average for four weeks was not to exceed the amount thus certified by the commissioners, together with an amount equal to the average amount of coin held by the banker during the same four weeks. Of the coin three-fourths must be gold, and one-fourth silver.

IV. In case the bank exceeds the legal amount, it is to forfeit the excess.

V. If two or more banks unite, they are authorized to have an issue of paper to the aggregate amount of issues of the separate banks, as well as the amount of the coin held by the united bank.

VI. Notes of the Bank of England not to be legal tender in Scotland.

309. The reader will see that there are some striking points of difference between the restraints laid upon the English and Scotch banks, for while the former are bound down to an absolute fixed limit of issue, the latter are permitted to issue to any amount, provided they hold an equal amount of coin above their authorized amount. Moreover, if any number of banks unite, they may

have an aggregate authorized issue, equal to that of the separate banks; but in England, if the number of partners of the united bank exceeds six, they forfeit their power of issuing notes altogether. This absurd restriction as to the number of partners in a bank never having had any force in Scotland.

310. The year 1857 was remarkable for a calamity, to which there had been no precedent except the Ayr bank, namely, the suspension of two very large joint stock banks, the Western Bank and the City of Glasgow Bank. The latter, indeed, has resumed business, and on an investigation of its affairs, it appeared that, out of a capital of above £800,000, it had lost about £70,000; having thus a very large paid up capital intact, it resumed business, and we may hope that after having received this severe lesson, its business will be conducted on better principles in future. But the Western Bank was found to have lost not only the whole of its paid up capital, £1,500,000, but nearly as much more besides. This bank was founded in 1832, so that in the course of twenty-four years, it lost £3,000,000 of money. The Ayr bank, in two years and a half, lost £400,000, so that of the two, the latter is proportionably the more severe calamity. The failure of the Western Bank, however, has called forth the most bitter attacks upon the general system of Scotch banking, which we shall find to be totally unmerited, because it is clearly proved in the evidence taken before the Committee of the House of Commons in 1858, *that during the whole course of its career, it pursued a system which was diametrically opposed to the usual course of the other Scotch banks.*

311. The Western Bank began business in 1832, and in the next year had a paid up capital of £209,170, which was increased year by year, till, in 1849, it amounted to £1,792,850, at which it continued till 1852, when a number of shares having fallen into the bank's hands by bankruptcy and insolvency, they were written off against the capital, which was thus reduced to £1,500,000, at which it continued till the closing of the bank. The mode of business adopted by this bank from the beginning, was not according to the usual plan of Scotch banking, for while as explained by the witnesses before the committee of 1858, one very important feature of it is to keep very large reserves in London, either at their bankers', or in government securities; the Western Bank invested its means chiefly in local accommodation, and kept very insufficient reserves in London, so much so, that, in 1834, its London agents, Messrs. Loyd & Co., dishonoured its drafts. It appears that upon this, the other Scotch banks refused its notes, and remonstrated with it for its mismanagement. On the 30th October, 1833, the directors, in answer to these remonstrances, notified to the other banks that they had resolved to invest, in marketable securities, a sum amply sufficient to prevent such a thing happening again. They promised to commence the necessary operations in the following January, and complete them in April, if not earlier. They also engaged to lessen their discounts, and to continue to do so, in order to have sufficient funds at its command. Upon this promise of better conduct in future, the three chartered banks advanced the Western Bank £100,000 to enable them to pur-

chase these securities forthwith. But the Western directors very soon broke their engagement, and reverted to their former mode of business. In 1838, they applied to the Board of Trade for a grant of letters patent, when a number of the other Scotch banks presented a joint memorial against it. They said that they should be wanting in their duty to the public, as well as their own constituents, if they sanctioned by their silence such an application. "The fact is well known to you, that while there have occurred, during the past fifty years, periodical convulsions among the banks in England, which have led to the failure of several hundreds, Scotland has, for the most part, maintained a state of general tranquillity, and there have, in the same time, occurred only three or four failures, and those of a very minor character. The cause of this is notoriously owing, first, to the large capital employed in the Scotch banks, and second, to the system of administration adopted. Capital alone, as has been recently experienced in England, by extending the scale of operations, may only increase the mischief. In the like manner, a numerous proprietary, constituting a protection to the public against eventual loss, may, by adding to the credit, add to the power of such an institution for evil. The safeguard of the Scotch system has been the uniform practice adopted of retaining a large portion of the capital and deposits invested in Government securities, capable of being converted into money, at all times, and under all circumstances. This requires a sacrifice, because the rate of interest is small, and in times of difficulty the sale involves a loss, but it has given the Scotch banks absolute security, and enabled them to pass unharmed through periods of great discredit.

"It is not then unreasonable that the managers of the Scotch banks should look with favour on a system which, notwithstanding their close connection with England, has exempted them from these calamities, and in the doubt that exists on banking theories elsewhere, it is at this moment sufficient to say that the system established in Scotland has worked well, and ought not to be disturbed there.

"The Western Bank was established in the year 1832, and the principle on which it has avowedly acted has been to employ as much as possible of its capital and assets in discounts and loans, retaining only the cash necessary to meet its current engagements.

"As this is a more profitable investment than Government securities, there is always a strong temptation to speculative or inexperienced persons to adopt this course, and if the consequences were to affect themselves alone, it would be of small moment, but, unfortunately, in banking, this cannot be. The whole system depends upon credit, and the failure of an ill-regulated establishment affects those differently constituted. Such a body in prosperous times boldly extends its business, and from seeing the readiness with which in such seasons commercial paper is discounted, comes to the conclusion that it is the best and most convertible description of investment that could be found.

"Prudent banks, knowing the delusive nature of this expectation, are compelled to increase their own reserve to meet the consequences of this

unwise expansion; and when the difficulty comes, they must either assist their rival to prevent an explosion, or must make a heavy sacrifice by selling their securities at a loss.

"The Western Bank, acting on this principle, allowed their London transactions to assume such an irregular shape, that their London agents, the respectable house of Jones, Loyd, and Co. took alarm, and in 1834 dishonored their drafts. The Bank of Scotland, Royal Bank, and British Linen Company were compelled to come to their assistance, and made then considerable advances. These circumstances, occurring in a time when the money market was perfectly tranquil, shewed the extreme danger of the practice. The Edinburgh banks insisted on a better system of management being adopted, and that the Western Bank should have invested in Government securities a sum amply sufficient to meet emergencies. The directors, after much discussion, at length, by a resolution dated 30th October, 1834, distinctly assented to the requisition, but as they had so engaged the assets of the Bank, as to render it impossible immediately to procure the funds, the Edinburgh banks lent them £100,000 for the purpose. *For some time the Western Bank may have acted on this agreement, but the temptation of profit appears to have got the better of their prudence, and they now repudiate their engagement.*

"It will be quite apparent that a bank that can employ its whole funds in this manner, is enabled either to divide a larger share of profits than its competitors, or to do business on more favourable terms; and we repeat, that if the only consequence of this was to increase or diminish the dividends of the rival establishments, it would be of comparatively small importance, but in its result it endangers the existence of every bank in the country, and the fortunes of a large portion of the community. We feel that, if letters patent shall be granted to this bank, after what has passed, *it will be a public sanction and countenance of a new and mischievous principle, opposed to the Banking system of Scotland.*

"The question is not in this instance, whether Government will interpose new restraints on banking companies, but whether they will encourage a violation of the old system, by granting distinction and privileges to a company, which having pledged itself to their observance now disowns them in its practice, and under these circumstances applies for a charter." This memorial was signed by the Bank of Scotland, the British Linen Company, the Commercial, and National Banks; and the Charter, if applied for, never was granted.

312. This system of keeping such small reserves in London produced the consequence foreseen in the preceding memorial. In 1847 the Western Bank was in difficulties, and received assistance from the Bank of England to the amount of £300,000 in November and December, 1847, which it repaid in March, 1848. From this time forward till 1852, when a change in the management took place, a rather more cautious course was pursued, but they did what we believe to be totally contrary to the usual practice of the other Scotch banks, they rediscounted. The following figures shew the amount of discounts and rediscounts from 1847 to 1852:—

	Discounts.	Rediscnts.
	£	£
In 1847 . . .	15,711,488	656,077
" 1848 . . .	12,088,648	874,707
" 1849 . . .	10,522,022	249,957
" 1850 . . .	12,048,669	290,818
" 1851 . . .	13,322,758	588,247
" 1852 . . .	13,525,882	407,148

At this time the Bank had £356,000 of overdue bills, besides other very heavy locks-up of capital, in one case amounting to £120,000, which was covered by insurances on the lives of the obligants, on which it had paid £33,512 as premiums when it stopped. "But even at this time," says Mr. Fleming, "it had a cluster of those people who had manufactured accommodation bills, doing business with them." So that in this year he says the Bank was not in a satisfactory state.

313. In 1852 a new management commenced, and to shew how the practice of rediscounting increased we give the following figures:—

	Discounted.	Rediscounted.
	£	£
In 1853 . . .	14,987,740	1,682,820
" 1854 . . .	18,596,704	3,856,292
" 1855 . . .	19,835,781	4,969,669
" 1856 . . .	20,410,884	5,407,868
" 1857 till Nov. 9	20,691,415	4,881,221

Thus we see the enormous increase of this most perilous practice during these years, a practice which places the existence of any institution that depends upon it to any great extent, at any moment at the mercy of the will, the caprice, or any accident that may happen to the purchasers of its bills.

314. But this was by no means the only instance of reckless management. Over and above all the other embarrassments, there were four accounts particularly to which the subsequent calamity was due; we will shew the state of these accounts in 1852 and 1857—

	Discounts.	Overdrawn Account.
	£	£
1852.		
Macdonald & Co. .	107,116	
Menteith & Co. .	83,779	3,528
Wallace & Co. . .	18,144	
Pattison & Co. . .	89,678	1,154
	<u>£188,717</u>	<u>£4,677</u>

Shewing that these four firms were under obligations to the Bank in 1852 to the amount of £193,394. The following was the state of the same accounts in 1857:—

	Discounts.	Overdrawn Account.	Overdue Bills.
	£	£	£
Macdonald . . .	408,716	5,633	8,526
Menteith . . .	876,799	67,685	98,129
Wallace . . .	227,464		
Pattison . . .	886,996	67,258	11,571
	<u>£1,849,975</u>	<u>£135,524</u>	<u>£118,226</u>

Being a sum total of £1,603,725 to these four houses alone, when they failed. And to show the character of the bills discounted for these firms, of £402,716 bills of Macdonald's current at the time of their failure, £398,349 were dishonoured at maturity; of Menteith's, £376,699, current at their failure, £269,726 were dishonoured at maturity; of Wallace's, of £226,741 current, there

were dishonoured £209,534; and of Pattison's, of £336,996 current, there were dishonoured £150,749.

315. Soon after the general meeting of June, 1857, the directors requested another person to examine the Bank's books, who, after doing so, and allowing all the current business of the bank to be good, including the above four firms, found that, bad debts to the amount of £573,000 were kept on the books as good, which, after deducting the rest and guarantee fund, amounting to £246,000, made a loss of £327,000 in the capital of the bank, and the advances to shareholders, holding 7,626 shares in the bank, amounted to £988,487. In the month of September, 1857, Mr. Fleming, the person whom the directors had requested to assume the temporary management of the Bank, began seriously to inquire into the nature of these immense accounts, and on the 7th, the Wallaces acknowledged that they were dealing in accommodation bills, and he saw that the Macdonalds must be doing the same thing, as the two houses were drawing on the same names. It was found that the Macdonalds drew upon 124 acceptors, only 37 of whom had been inquired about, and of these, reports on 21 were extremely bad. But there were 60 or 70 persons whom they drew upon, who made it a regular trade to accept bills for a small commission; in fact, it appeared that they engaged a man in London to procure them accommodation acceptances. As soon as the true nature of these accounts was ascertained, there was no resource but to stop them. The failures of Monteith and Macdonald, which were the first that became notorious, created a panic on the Stock Exchange on the 10th October, and the price of the stock rapidly fell, it being commonly reported that the whole capital of the bank had been engaged in enabling these parties to carry on their business for a series of years. These rumours created a run on the bank, to a slight extent, on the following Tuesday, which continued for two or three days, and during that week, ending the 17th October, the bank paid away about £36,000 in coin, but this was the only run for gold of any amount on the bank, for during the following week it only paid away £4,000, and in the week after that about £2,000, and the whole paid away in coin, between the 10th October and the 7th November, the Saturday before it stopped, was only £44,000. But during this period, the total deposits demanded were £1,280,000, and except the sum above mentioned as paid in coin, *the whole of these deposits were paid in the bank's own notes, which were immediately taken and lodged in the other banks.*

316. This dreadful catastrophe deserves to be minutely detailed, because it is strenuously asserted by a very influential party, that the small note circulation of Scotland tends to increase a panic among its holders. But in this case, the bank's notes in circulation did not in any way increase the panic. Mr. Fleming says, "I may say that there was no run for the payment of notes, all through. There may have been a few notes presented, but I should certainly limit the demand for gold in exchange for notes, to £5,000 or £6,000, I do not think it would exceed that. Mr. Wilson—In point of fact the whole pressure

upon the bank at any time was in respect to its deposits, and not in respect to its circulation? "*Decidedly, there was no pressure in respect to its circulation*; so much so, that during the last two days for which the bank was in operation, I do not think £1,000 was paid away in gold, at the head office. The whole money withdrawn was taken away in notes, and the consequence was that on the afternoon of the 9th of November, when the bank stopped, there was a very large amount of notes in circulation, something about £720,000. —Then the depositors became uneasy about the security of their deposits, went to the bank, and took the bank's notes?—Yes. Did they pay them immediately into other banks?—Yes. * * * Was there much drain in the provinces upon the balances?—Not a very large amount, certainly; a wonderfully small amount, in proportion to the total deposits, was withdrawn from the country.—I think you said that at the branches there was very little demand for gold, almost none?—*Almost none.*"

317. At the same time a very heavy blow fell upon them from another quarter. The bank, instead of keeping its funds well in hand in London, engaged in exchange operations with America. They had an agent in New York, though perhaps not openly and avowedly in that character, who granted letters of credit upon them, in favor of persons who wished to raise money. Such parties arranging with the agent, the securities to be lodged to meet the bank's acceptances. These credits were not by any means always paid at maturity, but were renewed to a large extent. By this operation a very considerable portion of the bank's funds was locked up in America, instead of being in London as they ought to have been. At the time of its suspension, its acceptances current, and its obligations to accept, amounted to £317,000, in two months' bills, which, multiplied by six, gives the amount of the year's transactions. The amount of funds locked up in America by their agent there appears to have been £376,520, against which he held railway bonds and current bills. Mr. Fleming said, Q. 5510—"It appears to me in many cases, the credits established by Lee upon the Western Bank have been modes of raising money for the purpose of constructing American railways, and for speculation in stocks, in New York." "The two banks, i.e. the Western and the City of Glasgow," said Mr. Robertson, the cashier of the Royal Bank, "were in the habit of accepting four months' inland bills drawn from London, Liverpool, and Glasgow, in respect of these credits, which was quite condemned by the Bank of England, and all the other banks in Scotland."

318. The general stoppage and failure of American credit at this time, rendered the expectations of any remittances hopeless from there. And Mr. Fleming, who undertook the duty of manager on the 15th October, told the directors it was absolutely essential to make provision for a contingent drain upon the deposit money, and also for the American acceptances becoming due. On the 17th October, the directors resolved to apply to the Bank of Scotland. On the 21st a written application was made to that bank for assistance, and on the 23rd a meeting having been held of all the Edinburgh banks, they declined to assist, until application had been made to the Bank of Eng-

land. This application was made on the 26th, and refused. This refusal being telegraphed down to Edinburgh, a meeting of the banks was held the same evening, and they agreed to advance £500,000, on condition that the directors should dissolve and wind up the concern. After some days' negotiation, the Edinburgh banks agreed to forego the compulsory winding up, as the directors of the Western said they had no power to do so, and advanced the money without this condition. This sum was accordingly advanced on the 29th October, on the promissory notes of the Western Bank, at six months' date, for £510,000, the terms being that the Western Bank should be bound to replace the Edinburgh banks in Consols, at the price of the day. In addition to the loan so obtained from the Edinburgh banks, the Clydesdale Bank advanced £100,000 on a note of the bank's at six months, with the individual guarantee of the directors, which was discounted at the current rate of 8 per cent.

319. The withdrawal of the deposits from the Bank, which was almost entirely among the small depositors, had greatly abated, and whatever might have been the ultimate result, which might have been necessitated in consequence of the examination of the Bank's affairs that was then in progress, there was no immediate danger of a catastrophe; when on the 29th October the city article of the *Times* announced that the Edinburgh banks had resolved to carry the Western Bank through their difficulties, on condition that they should wind up. The *Times* reached Scotland on the morning of the 30th, and immediately a fresh pressure commenced on the Bank. But this time it was of a different character from the previous one. The first pressure had been among the small depositors, the second consisted of the traders, who kept large accounts, who seeing that the Western Bank was going to close, made haste to transfer their balances to the other banks and open accounts with them, and it was this pressure which continued and made the Bank close its doors on the 9th of November, *not from a demand for gold, but because the balances of these accounts being withdrawn in the bank's notes, and paid into other banks, the Western Bank was unable to provide for the purchase of Exchequer bills from the other banks, to rectify this balance by a draft on London.*

320. To shew how mischievous this publication of the terms proposed was, we quote from Mr. Fleming's letter to the Bank of Scotland of 31st October, 1857. "The application made a fortnight ago, by the Directors of this Bank to the other Scotch banks, for a credit to the extent of £500,000, was based on my calculation that £350,000 or £400,000 would keep our London finance in perfect order, and that the remainder would be a sufficient reserve to meet any probable withdrawal of deposits. This calculation I still believe would have proved correct, *had the assistance required been given promptly, quietly, and free from any condition as to winding up.*

"But the demands made upon us have considerably exceeded my calculation, from two causes; first, the notoriety of our financial embarrassment, created by the delay in acceding to our application, and the course which the negotiations took from our having been referred to the Bank of England; and, second, the condition as to

winding up, which the other banks sought to impose, and the publicity given by the *Times* to this condition.

"It is not easy to say in figures to what extent these causes have respectively operated in inducing withdrawals, or to estimate to what extent they may still operate. But as to the past, my own observation here, and the reports from our branch agents, all convince me that the second has been immeasurably more mischievous than the first. *Deposits on receipts have been withdrawn to a very limited extent indeed, but balances on current accounts kept by the trading community have been removed to other banks to a considerable extent.* The reason is natural and obvious. If this Bank is to wind up, traders know that we cannot give them accommodation, and they take the earliest opportunity of arranging for that accommodation elsewhere, and withdraw their balances.

"I am hopeful that the mischief already done is not irreparable. That we retain still a measure of public confidence, is proved by the fact that *no fixed deposits of any large amount have been withdrawn, and nothing like a run has taken place, and gold has scarcely ever been demanded.* * * *

"I have already said that there has been no demand made upon us for gold, *all sums withdrawn having been taken in our own notes, and consequently the other banks have got the deposits.*"

The Western Bank then asked a further loan from the Edinburgh banks, which having been discussed for some days, was unanimously refused.

321. On Saturday, the 7th November, there was, from the heavy withdrawals of deposits in the Bank's notes, and their lodgment with the other banks, a heavy adverse balance on the exchange of that day. The Edinburgh banks were immediately informed that the Western Bank was unable to provide for this adverse balance on the following Monday. On the Sunday they resolved as soon as this inability to pay the balance should be declared, to instruct their agents to refuse the Western's notes. *And it was beyond all question shewn that it was this injudicious line of conduct that chiefly brought on the subsequent run for gold.*

322. The exchange being heavily against the Western on Saturday, it made a final proposal to the Edinburgh banks, and sent a scheme of an amalgamation with the Clydesdale Bank, to be discussed by them on Monday morning, the 9th, and kept its doors open till 2 o'clock, to learn their final decision. This being a decided refusal to entertain the terms proposed, the Western Bank shut its doors at 2 p.m., on Monday the 9th November. Another bank, the City of Glasgow, it was also known, had been engaged in transactions of the same nature as the Western, in America, and had also been equally negligent in keeping due reserves in London. This bank, too, required the assistance of the Edinburgh banks, though it has not been stated how much they received. On the evening of the 9th a run commenced on the saving's bank branches of this bank. "On the Tuesday morning," says *Mr. J. Robertson*, the manager of the Union Bank, "when the doors of the banks were opened, a great number of parties appeared with deposit receipts demanding gold; in fact the office of our own establishment was quite filled with parties

within a quarter of an hour of the opening of the doors; I think at half-past 9. The *Chairman*: You are now speaking of the Union Bank?—I am speaking of most of the banks; I speak of the Union Bank particularly. Were the Western Bank's notes at that time current, or were they refused?—*They were not current unfortunately.* Was there any deputation from Glasgow to Edinburgh on the subject of the other banks agreeing to take the Western Bank's notes?—This run, as you may call it, or panic, increased so much, that *the continued refusal of the notes of the Western Bank added very much to the excitement.* Those people who came for money would not take the notes of any bank, it did not matter what bank it was; they refused everything but gold. We thought that it would allay the excitement, if we were to take the Western Bank's notes; there being no danger of ultimate payment. We were so much impressed with that feeling, that two of the banks sent a deputation of their directors to Edinburgh to confer with the managers of the Edinburgh banks on the subject, and to induce them to rescind their order. They failed in that; the notes of the Western Bank were refused the whole day on the Tuesday."

323. The run of Tuesday exhausted the City of Glasgow Bank, and it did not open on the Wednesday the 11th. The state of Glasgow was so alarming that the magistrates sent for troops, and did all in their power to allay the excitement; they issued a proclamation advising the people not to press the banks for payment, and to take the notes of all the banks. They issued an order to all the rate collectors in the city to take all notes presented to them, including those of the two suspended banks. *But the demand for gold was almost entirely confined to the depositors, very few noteholders came forward.* On Wednesday and Thursday large remittances of gold from London arrived, about 10 o'clock in the morning, and were taken in waggons to the banks, escorted by strong bodies of police. But the run entirely ceased about 2 o'clock on Wednesday: at half-past two, says the same witness, there were not half-a-dozen people in the establishment. The panic, as this witness said, only lasted one whole day and part of the next.

324. In fact, the refusal to take the Western Bank's notes was one of the chief causes of the run for gold, and as soon as the other banks agreed to take them the panic ceased. *Mr. Lawrence Robertson* was asked, "What was it which first caused the panic to cease?—When the stoppage of these banks took place, the other banks were not precisely informed of their position, and hesitated a little in taking their notes; after further consideration, the other banks resolved to take all the notes as they came forward, and when that was done the thing subsided. As soon as it became known that the notes of the Western Bank would be received by the general body of banks in Scotland, the panic, with regard to the notes of the Western Bank, came to an end?—*Entirely.*"

The same witness also said, that there was no run upon any of the Glasgow banks before the stoppage of the Western Bank. "Were those parties who drew out gold over the counter in exchange for notes, or by cheques on their deposits?—It was chiefly in the case of small de-

posit receipts. And not for any considerable amount?—No. Do you think that it exceeded £1,000?—It is difficult to fix upon a sum; I never looked at that.—It was not of sufficient importance to call your attention to it?—No.” The City of Glasgow Bank resumed payment in about a month, but the Western Bank had lost not only its whole paid up capital of £1,500,000, but as much more again.

325. The details of this great catastrophe well deserve our closest attention, because it is the first instance of a *banking* panic in Scotland, and even that was confined to one town. The commercial failures were confined exclusively to the herd of adventurers who had been fostered and supported by the mismanagement of the Western Bank. There was but one house of any magnitude connected with Glasgow which suspended payment during this period, Dennistoun & Co., who were more a Liverpool and London house than a Glasgow one, and whose temporary stoppage was brought about by other causes. But this calamity has been seized hold of by persons who are hostile to the Scotch system of banking in general, and also to the £1 note currency of Scotland, to condemn them. But when we come to investigate the true facts we shall find that they lend no support to these charges. For with respect to the first, it is distinctly proved by the most unanswerable evidence, that from the commencement to the close of its career, the Western Bank pursued a system of business that was totally opposed to the well recognized system of Scotch banking, and unanimously condemned by all the well conducted banks. That during its whole course, it was a subject of terror and alarm to the other banks. That its locking up its funds in America was totally condemned by the Bank of England, and all the other Scotch banks. And the directors themselves, when, however, it was too late, acknowledged their own misconduct, for in their first application for assistance to the Bank of Scotland, on the 21st October, 1857, the Directors say, “On the part of the board of direction, it is right that *we should frankly say, that they are fully alive to the recklessness of the past management of the Bank*; that its credit has been strained to the extreme point; and that in the attempt to make large profits for the proprietary, unwise and undue risks have been run. Feeling all this, the Directors have entered on a course of management, which, (although the present commercial crisis renders curtailment difficult of speedy accomplishment) will eventuate in the establishment on a secure basis, of a business of a safer and a more legitimate, though certainly of a more limited description, than has for many years been conducted by the Western Bank of Scotland.” *Habemus ipsos confitentes reos.* The directors themselves acknowledged that their course of business was not in accordance with the usual Scotch banking system; what possible reflection then can it be on the recognized system that a bank, which went right in the teeth of it, failed? The very same remarks apply, only of course in a lesser degree, to the City of Glasgow Bank. This bank, too, was guilty of speculating in America, instead of keeping its reserves in London. And it, too, paid the penalty, by a temporary suspension.

326. The second charge, too, is equally

groundless, against the small note circulation. For it is said that these small notes aggravate a panic, and that a panic is most likely to commence amongst their holders. But in this case, the evidence most decisively negatives the supposition that any part of the panic was due to the small notes, and not only that, *but it decisively proves that the demand for gold was greatly lessened on account of the notes.* Mr. Fleming says, Q. 5532, “I may say there was no run for payments of notes all through. There may have been a few notes presented, but I should certainly limit the demand for gold in exchange for notes to £5,000 or £6,000, I do not think it would exceed that. Mr. Wilson—In point of fact, the whole pressure on the Bank at any time was in respect to its deposits, and not in respect to its circulation? Decidedly; *there was no pressure in respect to its circulation*; so much so, that during the last two days for which the Bank was in operation, I do not think £1000 was paid away in gold at the head office. The whole money withdrawn was taken away in notes, and the consequence was that on the afternoon of the 9th November, when the Bank stopped, there was a very large amount of notes in circulation, something about £720,000. Mr. Wilson—Then the depositors became uneasy about the security of their deposits, went to the Bank and took the Bank’s notes? Yes. Mr. Wilson—Did they pay them immediately into other banks?—Yes. Mr. Wilson—They thereby indirectly obtained payment through the other banks? Precisely so; they transferred their deposits from one bank to the other. Mr. Wilson—Did many of the depositors demand gold? Almost none; during the week after the 10th October, there was a slight demand for gold, and in the country, I believe, there was a very slight demand for gold.” Mr. Fleming then gave the figures, shewing that the total demand for gold during the whole month from the 10th October to the 9th November, was only £44,000, of which not more than £6,000 was in exchange for notes, but the total demand for deposits and balances on account was £1,280,000; from which it follows, of course, that the total pressure on the Bank was this:—

For gold in exchange for notes . . .	£6,000
For deposits taken in gold . . .	88,000
For deposits and balances taken in Bank’s notes	1,286,000
	<hr/> £1,280,000 <hr/>

Now, if the Bank had not issued notes, how would this last item have been demanded? *Of course in gold.* So that it is quite clear that the power of the Bank to issue notes saved and lessened the demand for gold to that extent. And we have already shewn that it was not any run for gold which made the Bank stop, but its inability to provide for payment of the adverse balance of exchange. But it may be said, See what followed the next morning. There was undoubtedly a run for gold next morning on some of the other banks. *But then there would have been the very same run if there had been no notes at all.* And that very run was greatly aggravated, if, indeed, it was not chiefly due to the most unfortunate decision of the other banks to refuse the Western Bank’s notes. *As soon as the other*

banks agreed to take the Western's notes, the panic immediately subsided, even though a second bank stopped the same morning. Now, what is the effect we might naturally have expected from a second bank's stopping in the midst of a panic? Clearly that that panic would have been greatly intensified. But in this case it was not so. The City Bank did not open on the Wednesday morning, and yet the whole panic was over by two o'clock that day. The whole demand on the Royal Bank for gold did not exceed £1,000.

327. Now, without prejudging the question in any way, whether the Scotch £1 notes should be suppressed, there is no dispassionate man who can, after reading the details of this crisis, come to the conclusion that they had anything whatever to do with this panic. The great wonder is, that after the unprecedented circumstance of two great banks stopping payment, the panic was so short, and so slight as it was. Does any man who knows London think that, if a similar case had happened there, the consequences would have been so comparatively trifling? The two London banks of most nearly equal magnitude with the Glasgow ones that stopped, are the Union and the London and County. Let us imagine that the Union Bank of London was to stop payment, and two days after the London and County. Does any man who knows London suppose that in such a case the panic would be limited to one day and a half? No man in his senses would think so.

328. Nor can there, we think, be any reasonable doubt that the refusal of the Edinburgh banks to take the notes of the Western Bank was a most unfortunate one. When the Ayr Bank failed, all the other banks immediately gave notice that they would take its notes at par, because they knew very well that its proprietors were perfectly well able to discharge all the claims upon them. It was perfectly well known that the proprietors of the Western Bank were worth many millions of money, and that there was no possible danger of any ultimate loss. Yet the banks on this occasion decided to refuse their notes, which decision they were afterwards obliged to rescind. And this is a very good proof that it was wrong from the first; and immediately that the notes were taken the panic ceased.

329. In the years of the great speculations in railways, numbers of persons wished to carry on the game of speculation by buying shares, and then raising money upon them from bankers. The old banks prudently declined this sort of business, and a number of banks were got up, principally for this business—if, indeed, it can be called business at all—as it was, in fact, pure gambling. After a short time, the railway shares went down as fast as they had risen, and all these banks, which were called Exchange Banks, were ruined, some of them under the most disastrous circumstances.

330. We have said that one of the principal features of the Scotch banking system is to have a small number of very large banks, with a great number of branches to each. To shew how the system has a natural tendency to become concentrated among a few great establishments, we may compare the existing number of separate institutions, at different periods. In 1826, there were 32 in-

dependent banks, of which 13 had less than 10 partners, 10 had less than 100, and the remaining 9 had more than 100. Fourteen of these had no branches, 17 had not more branches than 5, and the highest number that any bank had was 30, which was the Commercial Bank. The total number of offices was 159. In 1848, there were 391 branches; in 1855, there were 462 branches, and 17 principal offices; in 1857, there were the same number of head offices, with 666 branches; and in 1859, there are 14 separate banks—one the Union, having 4 head offices—and 597 branches, making altogether 615 offices.

Historical Sketch of the Rise and Progress of Banking in Ireland.

331. The origin of banking in Ireland, is, as far as we can discover, involved in much obscurity. We cannot but suppose, however, that it could not have been long delayed, after it had reached Scotland. We may, however, be somewhat surprised that after the institution of the Bank of Scotland, it does not appear that any one for a very considerable period thought of founding a public Bank in Ireland. The earliest evidence that we have of a banking firm in Ireland, is in 1700. The first public act in which the existence of bankers is recognised is the Irish Act, Statute 1709, c. 11, being *An Act for the better payment of inland bills of exchange, and for making promissory notes more obligatory*. By this Act it was enacted that the acceptance of every inland bill of exchange of, or above £5, should be in writing on the bill itself, which was not made law in England till 1821. It also declared that as promissory notes were not held to be within the law merchant, so as to be assignable or indorsable over to any one else, after the 1st of September, 1709, any promissory note signed by any person, or by the servant, or agent of any banker, goldsmith, merchant, or trader, should be negotiable in all respects as an inland bill of exchange. Another Act also, Statute 1721, c. 14, recognizes that the trade of the country was greatly carried on by bankers' notes.

332. In 1721, the first project that we have been able to discover was started for a National Bank. To this three peers, 47 members of parliament, a considerable number of merchants and traders, and others subscribed, but the subscription was not filled up, and the project was given up.

333. The plan of a national Bank having failed, the trade continued in the hands of private bankers, and there are several Acts passed for the relief of the creditors of various firms that failed in 1733, 1755, and 1759. In 1753 the competition of the private bankers in Dublin was so great, that out of every £1,000 there was not more than £10 of gold. The exchange rose 3 per cent. above par, i.e. the paper currency was depreciated to that extent. The natural consequence followed. All the specie left the country. The bankers themselves collected as much as they could, to remit to London, to purchase bills at 4 per cent. above par. The inevitable result of this ensued. In the next year every bank in Ireland, but two, failed, and these two paid off all their paper. Thus the entire paper currency was destroyed, the exchange fell to 2 or 3 per

cent. below par, i.e., the value of the currency rose from a depreciation of 3 per cent. to a premium of 2 or 3 per cent., in consequence of the contraction. But the convulsion was exceedingly severe, multitudes of people were ruined, many tenants threw up their lands, and scarcely a person in the three Southern provinces of Ireland but was affected. In 1755, while the country was yet suffering from this general catastrophe, an Act was passed to prevent bankers trading as merchants in goods or merchandize imported or exported, and great difficulties being found by the creditors in obtaining payment of their debts, an Act, Statute 1759, c. 14, commonly called the Bankers' Act, was passed to regulate the trade of banking. The chief provisions of this Act are—

I. All deeds and conveyances made, or to be made by any banker, or bankers, before the 1st of August, 1760, whereby any real estate should be granted, released, mortgaged, demised, or any ways incumbered, or affected, which should not be registered, or inrolled, according to the Act, Statute 1721, c. 14, shall be deemed fraudulent and void against all creditors of such banker, or bankers. And that all deeds and conveyances, after that date, made in Ireland by any banker, or any person empowered to do so on his behalf, whereby any part of his real estate, or leasehold interest, or whereby any mortgage belonging to any banker, upon any lands, tenements, or hereditaments, or leasehold estate, should be in any way incumbered, or affected, except only by way of lease for three lives, or thirty-one years, at the full improved rent, without fine, should be duly registered, within one calendar month, from the execution thereof by any such banker, or other person for him; and if such deed was executed out of the kingdom, it must be registered within three calendar months from the time of its execution; and that for want of such registry, every such deed should be deemed fraudulent and void against all the creditors of the said banker, even though made, or given, for valuable consideration.

II. After the 10th of May, 1760, all grants, sales, alienations, leases, or dispositions made by any banker during the time he continued to be a banker, of any part of his real estate, or of any interest he held in real or leasehold estate, to, or to the use of, or interest for, any son, or grandson, daughter, or granddaughter of such banker, should be utterly void against every creditor of such banker, though made or given for valuable consideration; and though such creditor was, or was not, a creditor at the time such grant, sale, alienation, lease, or disposition was made.

III. After the 10th of May, 1760, no banker should issue or give any note, or negotiable receipt, or accountable receipt, with any promise or engagement therein contained for the payment of any interest. And that all notes, or receipts, given in contravention of the Act, should be absolutely null and void.

IV. If any banker failed to pay any note, negotiable receipt, or accountable receipt, issued by him or his lawful agent, on demand, when the same became due, his heirs, executors, and administrators should be bound to pay all such sums so due, with legal interest from the time of demand to the time of payment, unless any agreement had been made to the contrary between such banker and his creditor.

V. If any banker, after he stopped payment, should receive or discharge any sum of money due to him at the time he stopped payment, every such receipt or discharge should be null and void. All deeds and conveyances made by any banker after he had absconded, or stopped payment, although made for valuable consideration, should be null and void, unless made for the use of, and in trust for, all his creditors, according to the order in which their respective debts should be paid; or unless they should be accepted and agreed to by all his creditors.

VI. Immediately after any banker should abscond, conceal himself from his creditors, or stop payment, all his property of all sorts and descriptions, both at law and in equity, or which he should be entitled to at the time of his death, should be liable and subject to all and every his debts, of what nature or kind soever, the same should be, except such as he should contract before he became a banker, or those secured by deeds duly registered.

VII. No banker who should abscond, conceal himself from his creditors, or stop payment, should have any privilege of Parliament.

VIII. All promissory notes issued by any bank, that should stop payment in future, should be paid before any receipt given, or issued, by the bank.

IX. No person intrusted with any public money should be a banker, or discount, under heavy penalties for each breach.

X. If any banker should discontinue business, all his creditors must make demand upon him for payment of his notes and receipts, within three years, otherwise their claims should be barred.

334. In the year 1782, at last, an Act was passed after great opposition, to establish a public bank in Ireland. The chief provisions of this Act, Statute 1782, c. 16, are as follows:—

I. The king was empowered, by a commission under the great seal of Ireland, to authorize and appoint any number of persons, at any time after the 1st day of August, 1782, until the 1st January, 1784, to receive subscriptions from any persons, to pay into the Irish treasury the sum of £600,000 sterling, to be paid in money, or treasury debentures bearing 4 per cent. interest, which should be received at par, and considered as money.

II. If any person should be willing to pay a premium upon the stock, such premium should be applied to the purposes of the bank.

III. The king might, by letters patent under the great seal of Ireland, limit, direct, and appoint, in what manner, and in what proportion the said sum of £600,000 should be made assignable and transferable to such persons as should freely and voluntarily accept it, and to incorporate the proprietors by the name of the Governor and Company of the Bank of Ireland, with full capacity to pay, possess, and enjoy all lands, rents, tenements, and hereditaments, of any kind, nature, or quality whatsoever, and to dispose of them in any way, and to enjoy the other usual privileges of a corporation.

IV. No single subscriber, whether private or a body corporate, to subscribe for more than £10,000 sterling, one-fourth of the subscription to be paid down, and the remainder before the 1st January, 1784.

V. In case the whole sum was not subscribed for before the 1st January, 1784, the Act was to be void, and all debentures and money lodged with the commissioners should be given back to their owners.

VI. The said corporation should not borrow, or give security by bill, bond, or note, covenant or agreement under their common seal, or otherwise, for any sum of money exceeding in the whole £600,000; nor should they, at any future time, owe more than that, unless by some future Act of Parliament. And if their debts or liabilities at any future time exceeded that sum, then the members of the corporation should be liable in their private capacities in proportion to their respective stock.

VII. The interest granted by the corporation for money lent to them should not exceed 5 per cent., and they were not to discount at a higher rate than 5 per cent., under penalty of treble the sum lent.

VIII. They were especially debarred from lending or advancing any sum of money, secured by mortgage, or sale of lands, tenements, or hereditaments, redeemable.

IX. They were forbidden by themselves or their agents, to deal or trade with any of the stock, monies, or effects of, or any way belonging to the said corporation, in the buying or selling of any goods, wares, or merchandizes whatsoever, under penalty of treble the value of the goods dealt with. But they were permitted to deal in bills of exchange, or to buy and sell bullion, gold, or silver, or to sell any goods, wares, or merchandizes whatsoever, which should really, and *bond fide*, be left, or deposited with them, for money lent, or advanced, thereon, and which should not be redeemed at the time agreed upon, or within three months after, or from selling such goods as should be the produce of lands purchased by them.

X. All their bills obligatory, and of credit, under their seal, and issued to any person, might, by indorsement thereon, by such person, be assigned and transferred to any one else, and so on, any number of times, by indorsement, and such assignment should vest all property in the said bills, and money due thereon, in the holder, who might sue in his own name.

XI. If the corporation, or any member of it, should purchase any lands, or revenues belonging to the Crown, or advance, or lend to the Crown, any sum of money in any way whatever, except by the special authority of Parliament, then every such person should forfeit treble the sum so advanced, one-half to the informer.

XII. If any person obtained any judgment against the corporation, for any debt or sum of money, and should bring execution thereon to the officers of the exchequer, they were required to pay the sum due to the plaintiff, and deduct it from the annual sum due to the corporation.

XIII. After the passing of this Act, no body politic or corporate should be erected into a national bank, nor should any private partnership, exceeding six persons, borrow, owe, or take up, any sum or sums of money, on their bills or notes, payable at demand, or at any less time than six months from the borrowing thereof, under a penalty of treble the amount so due.

XIV. No member of the corporation should be subject to the bankrupt laws, in respect of his

stock, and no stock of the corporation to be liable to any foreign attachment.

XV. The stock of the bank was to be personal, and not real, estate. And the annuity payable by the Crown was not to be liable to foreign attachment. All the debentures given in by the subscribers to be cancelled, and an annuity of £24,000 to be given to the proprietors of the stock, for the use of the subscribers to the bank.

XVI. At any time, upon twelve months' notice, after the 1st January, 1794, published in the *Dublin Gazette*, and repayment of the principal sum of £600,000 and all arrears, without any deduction whatever, or at any time before the 1st January, 1794, upon repayment of the said sum, and by the desire and consent of the said governor and company, duly expressed, the corporation was to cease and determine.

XVII. In case of the determination of the said company, in consequence of such notice, or request, or in case of insolvency, before any distribution or dividend shall be made of the said stock, or the produce thereof, the said governor and company shall be obliged, in the first instance, to apply the said stock, and the produce thereof then on their hands, or a competent part of the same, to discharge and pay off the total sum of the debts which they shall owe to others; and in case the same shall not be sufficient to pay off and discharge such debts so due to others, that then each member of the said corporation shall, in his, her, or their private capacity, according to the proportions of their respective interests in the said capital stock, be liable to the payment of such debts, until the whole shall be discharged.

XVIII. The dividends are to be payable every six months.

XIX. No transfer of stock to be valid, unless registered in the Bank's books in seven days from the contract, and actually transferred in fourteen.

XX. No act done by the corporation should forfeit or affect the private estate of any member of it.

335. The Bank began business on the 25th June, 1783. In 1791 by the Act, Statute 1791, c. 22, the Corporation was erected into a perpetual corporation, subject to the proviso, that at any time upon twelve months' notice, to be given after the 1st of January, 1816, and repayment of all parliamentary debts due to it, or upon their own desire, as in the former case, the corporation might be dissolved. The Company was allowed to increase its capital to £1,000,000; £200,000 to be subscribed and paid up on, or before, the 24th June, 1796, and the remainder on or before the 24th June, 1801; and this additional sum might be applied to their banking business. The new subscribers were to be incorporated, and the Bank might then increase their liabilities to the amount of £1,000,000. Part of the additional profits, however, to be made by this increase of capital, were to go to the public. And if the said sums of £200,000 each were not subscribed, and paid, within the time limited by the Act, the Company should lose the benefit of the Act.

336. In 1797 the Bank was authorized by the Act, Statute 1797, c. 50, to increase its capital to £1,500,000, provided the new stock was subscribed and paid, before the 17th February, 1798, in certain instalments provided. The new sub-

scribers to be incorporated as the old ones, and the Bank was allowed to increase its liabilities to £1,500,000. The new subscription of £500,000 was to be paid into the Exchequer, as a loan to the Crown, for which the sum of £25,000 was to be paid as interest, by two half-yearly payments; and besides that, an annuity of £3 12s. 6d. per cent. for nineteen years from the 24th of June, 1797. The sum of £2 10s. per cent. was allowed as discount for prompt payment. The interest granted on the first loan of £600,000 to Government was raised to 5 per cent.

337. An Act also was passed to confirm and continue the minute of council of the 2nd of March, 1797, directing the Bank to suspend cash payments, as the Bank of England had been ordered to do on the 27th February. During the restriction no action was to be maintained by any person against the Bank for the payment of any note, for which they were ready to give a note of equal amount in exchange. And any Court of Law might stay proceedings in any action to enforce payment until the restriction should be taken off. The Bank might pay any sum less than 20s. in cash, and any sum for the payment of the army or navy, in pursuance of an order of council, which was to be laid before Parliament within three days. But the Bank might receive any sum in cash from any person, not being less than £50, and agree to repay three-fourths of it. All payments in the Bank's notes during the restriction should be deemed payments in cash, if made and accepted as such. And no person who made a tender of the Bank's notes in payment, should be held to special bail. The restriction on the Bank should continue for three months after the restriction should be taken off the Bank of England, unless sooner ordered to cease by the Lord Lieutenant.

338. In 1799, the abuses which developed themselves both in England and Scotland, under the power of unlimited issues possessed by every one, were very annoying in Ireland, and the Act, Statute 1799, c. 48, was passed to remedy them. It enacted that in future, all promissory or other notes, or negotiable obligations for the payment of less than five guineas, except such notes under 20s., as were allowed to be issued by registered bankers, not resident in Dublin, should be made payable to some certain person or persons named, and their place of abode specified therein. That they should bear date before, or at, the time of issuing them, and not any subsequent date, and should be payable within twenty-one days next after the date thereof, and should not be negotiable after that date. All indorsements were to be made before that time, and all signatures and indorsements to have at least one attesting witness, whose name and abode were to be written on the note. During the restriction on the Bank of Ireland, any person might make, issue, or draw any inland bill of exchange, or obligation, for any sum not less than three guineas, and for no sum below it, and any such obligation, between three guineas and five guineas, should be made payable to the person by whom, or for whose use the value of such obligation should have been paid, and no one else. Such obligations were to be drawn in accordance with the previous provisions of the Act. All obligations under five guineas were to be payable only to the person who gave value,

under the penalty of forfeiting treble their value. All obligations for sums under 20s. were to be payable in cash on demand, and only to be issued by registered bankers. For the convenience of traders, registered bankers, not resident in Dublin, might issue obligations for 9s., 6s., and 3s. 9d., singly, and not in sheets, and the holders might demand payment in Bank of Ireland notes, and in no other form.

339. We have observed that, on the passing of the Bank Restriction Act in England, it was generally expected that their notes would fall to a discount, but that for a year or two their issues were made with so much discretion that no discount took place. In 1800, however, owing to the famine, and commercial embarrassments at Hamburg, a great drain of gold occurred, and the paper price rose to £4 5s., and the exchange fell very rapidly. It was at this time that the great discovery was made, *that the rise of the paper price of gold above the Mint price was the proof and the measure of the depreciation of the paper currency.* The first writer, whom we are aware of, who called public attention to this, was Mr. Boyd, in a letter to Mr. Pitt (Boyd). In a short time, however, the paper price of gold fell, and was not higher than £4, and no very great practical inconvenience being consequent upon this, the subject dropped out of discussion. The issues of the Bank of England were in a very severely contracted state in February, 1797, at the time of the suspension, and many very able writers, indeed, attributed the suspension to the severity of the contraction. After that, they had increased, but not to any very immoderate amount. But when the directors of the Bank of Ireland were relieved from cash payments, they lost all notions of prudence. In the space of six years they increased their issues to all but five times their amount at the time of the restriction. For while on the 1st January, 1797, they were £621,917, by the 1st of April, 1801, they were £2,266,471, and by November, 1803, they were £2,911,628. And the exchange between Dublin and London had fallen very rapidly, and proportionably to these increased issues. At this time, it is necessary to mention that the Irish shilling contained 13d., and as both the English and Irish pound contained 240d., a slight calculation will show that £100 sterling = £108 6s. 8d. Irish currency. Consequently, the par of exchange between Ireland and England was called 8½. Hence, whenever the exchange was below 8½, it was *favourable* to Ireland, and whenever it was above 8½, it was *adverse* to Ireland. During the first year of the restriction, the exchange between Dublin and London was favourable to Dublin, the exchange at the close of the year being 7. But immediately after that it began to fall, and at the close of 1798 it had fallen to 9½, at the close of 1799 to 14½. In 1800 it rose to an average of 11½, but this was during the period when the English exchanges had fallen very low, and the paper price of gold had risen to £4 5s. In 1801 the average was a little below 13, in 1802 it was slightly higher, but in 1803 it rapidly fell, and in November was at 19. At this time the issues of the Bank of Ireland were £2,911,628.

340. This extraordinary derangement of the exchanges was productive of the utmost mischief and confusion to all commerce, and was repeatedly,

as stated by Lord King, brought before the notice of Parliament in the debates on the Irish Bank Restriction Bill, though it does not appear in the meagre reports that have come down to us. It also attracted the forcible attention of economists, and in 1803 and 1804 appeared two most able and remarkable tracts, one by Lord King and the other by Mr. Henry Parnell, afterwards Sir Henry Parnell, and Lord Congleton, forcibly supporting the doctrines previously propounded by Mr. Boyd, that the depression of the exchange below the cost of transmitting bullion from one place to another, was the proof and the measure of the depreciation of the paper currency. Both these pamphlets deserve the most attentive study, because they most clearly and unanswerably establish the great fundamental proposition of a paper currency—*That a rise of the market, or paper, price of gold above the Mint price, and a fall of the foreign exchanges, beyond the cost of transmitting bullion from one place to another, is the proof and the measure of the depreciation of the paper currency.*

341. Lord King's pamphlet, too, is especially remarkable as containing the first formal protest against Adam Smith's doctrine, that as long as the issues of Bank notes were confined to the discount of mercantile bills, founded upon real transactions and of undoubted solidity, they could not exceed the amount which would necessarily circulate, if the currency was purely metallic, and therefore could not be excessive. This doctrine was stoutly maintained by some of the witnesses in the Parliamentary Inquiry, which will be shortly noticed, as well as by the Directors of the Bank of England before the Bullion Committee. This doctrine is very specious, but perfectly delusive, and Lord King has the merit of first declaring its fallacy. These two little treatises must therefore be considered as among those which have established fundamental principles in Political Economy, and will be found fully analysed in their proper places (KING, LORD), and (PARNELL). They also deserve to be particularly mentioned, because they are the true founders of a doctrine whose discovery many persons most unjustly attribute to Ricardo in 1809. And the phenomena, we are now going to consider, are precisely the same as those which led to the appointment of the Bullion Committee in 1810.

342. In 1804 the extravagant issues of the country bankers and others reached such an intolerable height, that all the monetary transactions between Dublin and London were deranged, while those between Belfast, where nothing but specie was current, and London, were perfectly regular. In the debate on the Irish Bank Restriction Bill, February 13, 1804, Lord Archibald Hamilton called the attention of the House very strongly to the evils of the excessive issues of paper. At the time that the Bank of Ireland Restriction Bill passed the Irish House of Commons the amount of notes issued was £600,000, and at that time they were £2,700,000. While the par of exchange between Ireland and London was 8½, it was then 17, 18, and even 19 per cent., and in some instances 20, and thus an Irish gentleman who came to attend his duty in Parliament, found at the end of his journey, where he had allotted £500 for his expenses, that only

£400 were to be received. Mr. Foster declared that he did not believe that there was one real shilling to be found from one end of Ireland to the other; there was even a scarcity of brass. Mr. H. Thornton, one of the authors of the bullion report, said that it appeared to him clear, that the excess of paper circulation was the cause of the bad state of exchange in that country.

343. The state of the exchanges between the two countries was productive of so much inconvenience, that on the 2nd March, 1804, Mr. Foster moved for a committee of the House of Commons to inquire into it. He said that guineas were then at a premium of 2s. 4d. or 2s. 6d. in the current paper of the country, and whatever causes it might be attributed to, the whole bank paper of Ireland was then at a depreciation of 10 per cent. But even that was not the worst. There was scarcely anything in the shape of money to be seen, but a miserable coinage of adulterated copper, and of counterfeit shillings, so bad, that for a pound bank note even at its depreciated rate, twenty-six or twenty-seven of such shillings would be given in exchange. Mr. Ponsonby said that no man, who had not been in the country, could form any conception of the distress from the state of the currency. There was not to be found in the country parts of Ireland except in the north, any description of coin whatever, except some very bad copper; silver or gold there was none. But as something must be used for circulation, there were many persons who, without any capital whatever, set up a kind of banking shops, and issued notes of 6d. or a 1s., and a note for 3s. 6d. was considered as a very large one. Mr. Fox, too, saw clearly that the bank paper was depreciated, and not the guinea that was raised. A committee was then appointed to inquire into the causes of the extraordinary state of the exchange between Dublin and England, and the state of the currency in Ireland.

344. The circumstances which gave rise to the appointment of this committee, and its report, are deserving of great attention, as this was the first parliamentary investigation into the theory of the paper currency, and they are the antetype of what afterwards occurred in England, and gave rise to the appointment of the Bullion Committee.

345. The evidence given before this committee of the state of the currency of Ireland, was most extraordinary. Mr. D'Olier, a director of the Bank of Ireland, had some of the base currency in circulation weighed. He found that it took 128s. to the pound weight, such as remained of the old mint issues weighed 94s. 6d. to the pound, being delivered at the rate of 62s. to the pound. He estimated that the best of the base silver shillings were not worth 6d., and the worst about 3d. The makers of this base coinage sold it to persons who had an opportunity of circulating it, at the rate of from 28s. to 35s. the guinea. Mr. Roach said, that in the South of Ireland, the silver currency had entirely disappeared from circulation, and its place was supplied by the issue of silver notes. These, together with the increasing issues of bankers' notes of all descriptions, had enhanced the price of all articles of the export trade above their natural value, and had created a degree of false credit in the southern parts of Ireland, which increased the prices of land, &c. These issues of

silver notes were constantly increasing, especially during the last twelvemonths. He said that there was in reality a very good supply of real silver in the south of Ireland, which was hoarded and concealed, and which would again come into circulation, if these silver notes were suppressed as they ought to be. Traders almost universally issued notes for 3s. 9d., and 6s., payable to bearer at twenty-one days after date, to evade the law. Mr. Colville, a director of the Bank of Ireland, thought there might be some small proportion of mint silver, greatly worn, in circulation in Dublin, but not more than 2 per cent. This had been gradually getting worse and worse for more than five years. Crowns and half-crowns, originally issued from the mint, were not circulated, but kept as curiosities, and from the high state of the exchange, the best pieces were carefully picked out for exportation. There were at this time in Ireland 7 bankers issuing bank notes, 28 issuers of gold and silver notes, 62 issuers of silver notes, and 128 issuers of I. O. U.'s. In the Youghall district alone, there were 70 issuers of currency, of which 62 issued I. O. U.'s, from 6s. down to 3d.

346. In the North of Ireland, where nothing but gold was current, the exchange at Belfast with London had always continued favourable to Belfast, and even while the exchange at Dublin was progressively sinking, the exchange at Belfast continued to rise. From 1794 to the end of 1798 the exchange had been invariably favourable to Dublin, being generally about 7½, and sometimes even so high as 5, but at the end of 1798 it fell to 9; during 1799 it fell rapidly to 14 in the beginning of December, but it being expected that Bank of Ireland notes would be exchanged for those of the Bank of England, it rose to 9, and continued a little below that rate during 1800, but at this time the Bank paper in England had fallen to a considerable discount. In 1801 it began steadily to fall again, and this became much more rapid and severe during 1803. In August and September of that year it reached a depression of 19, and though it afterwards rose to 13, it continued to exhibit the most extraordinary fluctuations, and was at 18 at the end of January, 1804, when it was brought before the House. The following figures exhibit the difference of the exchange on London between Dublin, where all the currency was paper, and Belfast, where it was all specie:—

1802	Dublin.	Belfast.
Average of	£. s. d.	£. s. d.
1st Quarter . . .	11 5 11	6 13 4
2nd " . . .	11 11 3	7 15 0
3rd " . . .	11 2 7	8 0 10
4th " . . .	10 13 5	7 3 9
1803.		
1st Quarter . . .	11 1 9	7 12 6
2nd " . . .	13 8 11	8 8 8
3rd " . . .	15 17 0	7 12 6
4th " . . .	15 8 7	5 12 6
1804.		
January 27 . . .	18 0 0	6 0 0

At Newry, which was a kind of debateable land between specie and paper, the exchange upon London, according as bills were purchased with specie, or bank notes, was as follows:—

1803.	Specie.	Bank Notes.
	£ s. d.	£ s. d.
January . . .	7 17 6	12 17 6
April . . .	8 0 0	13 0 0
July . . .	8 10 0	13 10 0
October . . .	6 0 0	15 10 0
1804.		
January . . .	6 0 0	15 10 0

In 1696 the extremely depreciated state of the silver coinage of England had turned the exchanges, greatly against this country. But it was a principle perfectly well known to the merchants of that time, as any one who reads the pamphlets of that period may see, that the *real exchange between any two places could never vary more than the cost of sending bullion from one place to the other.* The question, therefore, before the committee was, to what could this extraordinary state of the exchange at Dublin on London be owing? Especially what could be the reason of the difference of the rate between Dublin and Belfast? One set of witnesses plainly and unhesitatingly declared that it was owing to the over-issues of bank paper in Dublin.

347. When the directors of the Bank of Ireland were asked whether they thought the Bank's notes were depreciated, they indignantly repudiated such a notion. Mr. Colville, being asked what could be the motive for so large an increase in its issues, as from £600,000 to £3,000,000 in so short a time, said that the course of exchanges having about two years after the restriction become very high, and greatly against Ireland, the money of the country was carried out of it, for the purpose of paying the balance of remittances against Ireland. The consequence was, that as the circulating medium of gold decreased, it became necessary to supply its place with paper. He said that, after the restriction, it was necessary to supply notes for the payments that would have been made in guineas, and this amount he placed at £1,200,000. He said that he thought it was a very great error to suppose, as was generally done, that the extension of paper in Ireland has been a cause of raising the exchange; in his opinion it was directly the reverse, inasmuch as the circulation of paper supplied the circulating medium, it enabled the gold, which before stood in its place, to be exported out of the country, and, as far as it went in weight and measure, so far it was a clear and decided cause of preventing the exchange from getting to a higher pitch than it had hitherto attained. And it was evident that the more paper issued by the Bank, in consequence of an extension of loans, so far as it further extended the notes of the Bank, it further enabled a greater drain of specie to take place, and consequently to strengthen the cause, which kept down the rate of exchange. This witness attributed the state of the exchanges exclusively to the fact, as he alleged, that Ireland owed a great deal more money than she was able to pay. These opinions he repeated over and over again.

348. We shall find in this witness's evidence one of the most curious specimens of reasoning in a circle, that can be easily met with. He was asked—"To what do you attribute the unfavorable exchange which has existed between Dublin and London?—I decidedly and clearly consider the sole efficient cause to be that Ireland owes a great deal more money to Great Britain than she is able to pay.—What do you take to be the true criterion of such balance of debt?—The true criterion I take to be, the state of exchange between Dublin and London, and London and Dublin.—Explain your reasons?—When exchange is considerably above par, it is said to be against Ireland, and in that case certainly, at that time Ireland owes more money than she is able to pay." That is to say, the *reason* why the ex-

changes were unfavorable, was *because* Ireland owed money, and the *proof* that she owed money was *because* the exchanges were unfavorable! Marvellous logic! He was asked if the rate of exchange could be influenced by the value of the medium in which the balance of debt between the two countries was paid, as if, for instance, it was paid in a degraded or adulterated coin. He admitted it might be so if paid in base coin, but he denied that such views in any way applied to Bank of Ireland paper.

349. Mr. D'Olier entirely coincided in these views; being asked—"Do not you conceive that there may be an augmentation of Bank of Ireland paper, which may be so large as to have the effect of diminishing its value in exchange for goods, supposing bank paper to be not now convertible into coin, and that the public confidence in the ultimate solvency of the Bank, and even in the certainty of the Bank paper being again converted into gold, at some remote and indefinite period, may be perfectly maintained?—I think it possible, but by no means probable. I have heard it stated that, because gold is bought at a premium, that therefore Bank of Ireland notes are by so much depreciated, and at an absolute discount to the amount of that premium, but I do not conceive that that is the way to look at the question. The circulation of the paper said to be depreciated, must first be proved to have become burdensome to the holders, and bargains to have been made by unnecessary purchasers to get rid of that which they found inconvenient or were apprehensive to hold. The mere buying of gold at an advanced price beyond that of the Mint is the effect, and not the cause, of the exchange, and therefore no proof of the depreciation of the paper itself."

350. The theory of these gentlemen was, that the exchange could only be depressed on account of money being remitted, and that it might be depressed to any extent in proportion to the money that had to be remitted. Now, if this theory was true, it happened, as may be seen from the above figures, that while the exchange was adverse to Dublin, it was favourable to Belfast; consequently, while enormous remittances were making from Dublin to London, there must at the same time have been large remittances making from London to Belfast. Nay, the phenomena at Newry were more astounding still, for at that place, when payments were made both in specie and paper, the exchange, if paid in specie, was favourable to Newry, and if paid in paper was adverse; consequently, that reasoning would show that London was largely in debt to Newry, and Newry enormously in debt to London!

351. Mr. Colville fully admitted, that before the restriction, the Bank was obliged to contract its issues during an unfavourable exchange and a drain of guineas. He was asked, "Was it the practice of the Bank, antecedently to the restriction, in any degree to restrain the total amount of its loans, when it experienced a diminution of cash in consequence of an unfavourable exchange, or of any other circumstances producing a drain of its guineas?—It must be very obvious that, if the directors of the Bank did not pay a very great attention to such an important consideration, they would be very unfit to conduct the business put under their care. Do you mean, then, to say, that they were accustomed to lessen the total

amount of their loans, including loans in the way of discounts, when they found their guineas going from them?—*I certainly do.* Did not that limitation of loans necessarily operate as a limitation also of the total amount of their circulating paper to an equal amount?—It certainly does generally, but from the nature of the case, it is impossible to state the specific proportion. Would not the Bank paper, in such a case, be necessarily reduced, not only in the degree in which the loans were reduced, but even in a still greater degree—namely, in the same proportion, also, as the gold of the Bank was diminished?—It certainly would; and in the former answer given I think I have explained it. * * * Do you admit, then, that, antecedently to the restriction, the paper of the Bank of Ireland naturally diminished itself whenever gold was drawn out of the coffers of the Bank, supposing even its loans to remain the same?—As the notes came in for payment of the cash, the cash was diminished, and the circulation of paper was diminished in the same proportion; but in all these cases the prudence of the Bank induced them to call in their loans, in order to strengthen the Bank provisionally against the continuance of such a drain," p. 102-3. There is a good deal more of evidence to the same effect, the gist of which is, that before the restriction the Bank instinctively felt it their duty to contract their issues during an adverse exchange, no matter how good the bills presented for discount were.

352. But at this time the doctrine of Adam Smith was brought forward, which we have noticed above, as having been denounced by Lord King, that the Bank's issues could not be excessive, so long as they were advanced on mercantile bills of undoubted solidity, and based on a real transaction. The directors of the Bank of Ireland, of course, were not likely to admit that their own notes were depreciated, because that would be condemning themselves. Several of the other witnesses maintained the same doctrine. Mr. Irving, a merchant of London, was asked, "Do you deal with Ireland?—I do; I know the Exchange has been high. Has there been a depreciation of circulating paper in Ireland?—I have heard so. Is it your opinion that it has been depreciated?—It is not. Have you heard that guineas have been purchased for a premium there?—I have; and I believe it. Do you not think, of course, that paper is depreciated, when guineas are bought at a premium?—I do not. Explain your reasons.—I am of opinion that a bank, managed with prudence, would only issue its notes in proportion to the demand, which may be made for those notes, in exchange for good and convertible securities, such as mercantile Bills of Exchange, payable at specific periods, of undoubted respectability, founded upon real mercantile transactions, upon government securities, such as Exchequer Bills, in the purchase of Spanish dollars, or other bullion; and the circumstance of the bank notes of Ireland being demanded for such good and convertible securities, I am of opinion, is a proof that they are not too large in amount, and that their value has not depreciated." * * * Another reason why I am of opinion that Bank notes have not depreciated in value is, that the interest of money has not been diminished. May not notes be depreciated in the value of their currency, although they are

in no way depreciated in the opinion of their security?—I think not, because, by a parity of reasoning, it might be said that a guinea is also depreciated; because, comparing the quantity of gold which is contained in a guinea, according to its Mint price, it would yield, according to the present market price of that commodity, a premium. Might not a greater quantity of notes being in circulation than the country requires, cause their depreciation?—Yes, I have already stated that Bank notes can only maintain their value, when they are demanded in exchange for good and convertible securities." Now, we shall not, in this place, investigate the accuracy of this theory, because it was reproduced with much greater force and emphasis before the Bullion Committee, and the Irish Committee pronounced no opinion upon upon it in their report. The Bullion Committee did investigate it, and condemned it. We only say here, that it is one of the most subtle and plausible theories ever started, but it is in reality only another phase of John Law's theory of basing a paper currency on land. If this theory were true, the whole public debt of Great Britain might at once be converted into notes, as well as all mercantile bills. It is only one form of Lawism. (BULLION REPORT. LAW.)

353. In 1696, during the recoinage of the silver money, the Bank of England stopped payment, and a difference arose between Bank notes and specie of 20 per cent., and between tallies and specie of 40 per cent., and it was universally said that Bank notes and tallies were at a discount of 20 and 40 per cent. respectively. There is no trace of any other language but that being applied to them. At the period we are now speaking of, the Irish Bank had suspended payments, and Irish Bank notes and specie exchanged at a difference of 10 per cent., so that it required a guinea note and 2s. 6d. to buy a guinea in specie. The merchants and statesmen of 1696 would have expressed this state of things by saying that the Bank note had fallen to a discount of 10 per cent. But at this period a new mode of expressing it was discovered; it was stoutly maintained that it was not the paper which was depreciated, but the guinea which had risen in value! or was *appreciated*, as the jargon was. Mr. Harman, whom we meet again before the Bullion Committee, was asked, "Do you know that the Bank of Ireland paper is depreciated?—I am not aware of it, because I should not say that paper was depreciated unless there was a forced issue of it, and that it was offered at a discount on all occasions; I should rather now say, that gold is increased in value, than the paper is depreciated. When 2s. is given in Ireland universally for the exchange of a Bank of Ireland guinea note into gold, do you not estimate that the note is depreciated to the amount of 2s.?—The distinction may seem nice, but guineas are wanted in Ireland chiefly for one purpose—the trade of the North, as I have understood—and as the transactions of the North are carried on by guineas only, I apprehend that is the cause. * * * Do you, then, think the present rate of exchange to depend wholly on the balance of payments due to Great Britain, and not to be affected by anything relating to the circulation of that country, as it at present stands?—I am inclined to think that the circumstances alluded to are sufficient to produce the evil. I do not say

there may not be other circumstances which may contribute towards it. I allude to the balance of debt which Ireland owes. * * * What do you consider to be the best criterion of the depreciation of paper currency, an alteration of its value, compared with the general property of any country, or its alteration compared with a given article, viz., guineas?—I think the first the best criterion, because guineas may be wanted, as in the present case, for special purposes. Is there not at present a difference between the value of Irish and English Bank paper in Ireland?—For the purposes of remittance, certainly. Do you not conceive that the fact of a premium existing on English Bank notes in Ireland, and exchanged for Irish Bank notes, affords some indication that it is Irish paper which is depreciated, and not the price of gold which is locally raised?—I do not."

354. It is remarkable that when Mr. Harman said that he considered the value of paper, as regards other things, a better criterion than its value compared to gold, he did not remember that the Bank notes were a "promise to pay" gold, and they were not a promise to pay anything else. The same opinions were expressed by other witnesses, who seemed to think that there could be no possible cause, which influenced the rate of exchange, but the remittances to be made to or from the country. When we consider the nature of an exchange, and the state of facts proved with regard to the Irish coinage at that time, we might almost smile at these ideas, and attribute them to the peculiar modes of thinking, which are sometimes prevalent on the western side of St. George's Channel. But we shall find that, when a precisely similar state of things took place in England, with regard to the foreign exchanges, the very same doctrines were long and stoutly asserted by a very numerous party in this country, and would probably be so again, under similar circumstances.

355. There was one witness, however, who held very different opinions—Mr. Marshall, Inspector-General of Imports and Exports of Ireland. Being asked, "What is the rate of exchange between England and Ireland, and how has it stood for some time past?—In order to answer that question, I will beg leave, in the first place, to state some facts which prove that Bank notes, including bankers' as well as Bank of Ireland notes, are not exchangeable for specie without a premium; and then I will proceed to state some acknowledged principles and facts relative to the rate of exchange, together with such opinions as I have been enabled to form on the subject. First, as to the premiums on specie. A premium has been taken upon exchange in Dublin ever since the year 1799, for exchanging Bank of Ireland notes for specie. The premium did not exceed 5 per cent. on the amount of the notes prior to the summer of 1803; but since that time it has risen to 10 or 12 per cent. Secondly, there are also specie shops, as they are now called, in some of the principal streets of Dublin, with these inscriptions over the door, "Guineas bought and sold here," and "Bank notes exchanged for guineas," &c. &c. About the time of the insurrection, the 23rd of July last, the retail price of a guinea in gold was a paper guinea and 2s. 8½d.; on the 31st December, 1803, the day on which I made my last inquiry on the subject, the retail

price of a guinea in gold was a paper guinea and 2s. 2d. Thirdly, about the end of December last, the price of a bill in Dublin upon London for £100 British was £116 10s. Irish, if purchased with Irish Bank notes, but if purchased with specie, the price was only £106 10s. Irish. Fourthly, but it is not only when we buy bills of exchange that we find out the premium, we perceive it also in all our domestic transactions; the man who goes to market with a guinea in gold, has an advantage, to the extent of the premium, over another going to market with a guinea in paper. The man with the guinea in gold calls in his way to market at a specie shop, and sells the guinea for a paper guinea, and the premium; he has then a bank note of equal value with that of the other man, and he has besides the premium. Fifth, the premium given with Bank of Ireland notes, when exchanged in Dublin for those of the Bank of England, is much the same as when exchanged for specie. From these facts, it appears that Irish Bank notes want 10 or 12 per cent. of the value of specie. Specie could not have risen so high in Ireland, or, which is the same thing, all her commodities could not have fallen so low as 10 or 12 per cent., and have continued in that state for any considerable time, circumstanced as that country is with regard to Great Britain; because such a degree of cheapness of all commodities in Ireland would have attracted specie from Great Britain, where it has not risen materially, and reduced the value of it to the ordinary level. But were it possible that specie should have risen with regard to all commodities in Ireland 10 or 12 per cent., or any supposable height, Bank notes which were issued for specie at its current value, whatever it may be, ought of course to have risen *pari passu*, and to be exchangeable for it, and therefore, whatever Bank notes may now want of this exchangeable property, must be considered as a falling off from their original value, or a depreciation to that extent. In speaking of Bank notes, I speak of the paper currency of Ireland at large issued by bankers. Are you of opinion that the paper currency of Ireland at large is depreciated?—I am clearly of that opinion, for the reasons I have mentioned. To what causes do you ascribe the depreciation of paper, whether from discredit, or over issue, or otherwise?—As to discredit, I never heard the solvency of the Bank of Ireland doubted by any one, and I am inclined to impute it to an over issue, but I cannot give a decided opinion; I mean an over issue of paper in general, and not of the Bank of Ireland particularly.”

356. Mr. Marshall then shewed most clearly, that the real exchange arising from a balance of payments was in favor of Ireland, and not adverse to it as appeared by the nominal exchange. That the exchange appeared to be against Dublin was owing to its always being computed in bank notes, which having ceased to represent the full quantity of specie for which they were issued, required an additional number of them to make up that quantity. This additional number swelled the exchange, and made it appear to be against Dublin, when in reality it was in its favor. The proof that the real exchange was in favor of Dublin was very simple, because bills of exchange purchased with specie in Dublin, or with Bank of Ireland notes equal in amount to specie at their

market price, would then yield about £1 16s. 8d more in London than they would cost in Dublin. Whereas during an unfavorable exchange a merchant could always get more for his bill in Dublin than in London. These facts decisively proved that the real exchange was in favor of Ireland.

357. Mr. Marshall put before the committee an elaborate statement, regarding the true state of the balance of debt, to which the lowering of the exchange was attributed; and also to shew whether the balance of debt influenced the depreciation of the paper currency. He said that there were some points involved in obscurity, but at the period of the suspension, it might be assumed that the balance of debt was in favor of Ireland, because the exchange was then steadily favorable to Dublin. Starting from this point, it might be shewn whether the circumstance which had arisen since had had any, and what, effect upon the state of things, assumed to have been favorable at that time. From this statement, Mr. Marshall shewed most conclusively, that the balance of debt which was favorable to Ireland at the time of the suspension, had since that event become still more favorable to it. Having shewn that in fact the balance of debt was in favor of Ireland, his second object was to shew whether it influenced the depreciation of the paper currency. He shewed that on the 3rd March, 1797, when the bank suspended cash payments, the exchanges were favorable, and during that year a larger quantity of specie was remitted to Ireland than had ever happened before. Nevertheless, while the specie was flowing into Ireland, the depreciation of the notes commenced. From August, 1801, to the time he was speaking, April 24, 1804, no remittances of consequence had been made to London in specie, “Bank notes, however, have never ceased, whether the specie was coming into Ireland, or going out of it; whether the exchange was under par or above par; whether the balance of debt was favorable or unfavorable, to be depreciated; and the depreciation appears to have been higher when the balance of debt was more favorable, and lower when it was less so; and upon the whole it is evident that the depreciation has not been influenced by the balance of debt. Do you mean, then, upon the whole of your evidence, to give it as your decided opinion, that the general balance of debt between England and Ireland, including trade, remittances, and every species of pecuniary transaction, has been each year since the restriction on specie, in favor of Ireland?—I do, very clearly, except during the two years of scarcity, and upon the whole six years taken together the general balance must have been considerably in favor of Ireland. Do you also mean, upon the whole of your evidence, to give it as your decided opinion, that there is, and has been, a depreciation of the paper currency of Ireland, and that the high rates of exchange which have prevailed, and still prevail, have arisen from that depreciation?—I do; the high exchange in Dublin, which has now continued for some years, MUST NO DOUBT HAVE ARISEN, LIKE ALL OTHER PERMANENTLY HIGH EXCHANGES, WHICH HAVE EVER EXISTED, FROM THE DEPRECIATED STATE OF THE CURRENCY, WITH WHICH BILLS OF EXCHANGE ARE PURCHASED, and the same remedy might perhaps be resorted to with success in the present case, which

has never failed to be effectual on all former occasions, namely, a removal of the depreciation."

358. We shall now give a somewhat full analysis of this report, because it is the first parliamentary investigation into the theory of the paper currency; and though, comparatively speaking, little known, it is one of the great landmarks of Political Economy. The report divides the inquiry, 1st, into the state of the Exchange, and 2nd, the state of the Currency. The first of these, namely, the state of the Exchange, is considered under three heads:—

I. As to the fact of an unfavourable Exchange existing, and to what extent.

II. As to the causes which have created it.

III. As to the remedies which can be resorted to, for either removing, or alleviating the inconveniences arising from it.

With respect to the first, tables of the rates of Exchange between Dublin and London, and Belfast and London, had been laid before them, showing a difference of 10 per cent between the two, in some cases. In the former place, bills were purchased with Bank of Ireland, and other bankers' notes; in the latter, with guineas. The exchange, if stated as between Belfast and London, appeared to be in favour of Ireland; if stated as between Dublin and London, to be uniformly against Ireland, ever since 1798, and to have risen to an unprecedented degree. The former they would call the real, and the other the nominal exchange, and the difference between the two arose from the depreciation of the circulating paper. It was true that some reasons were urged to shew that it was the value of guineas that was raised; but if a person who had a guinea could buy with it, a Bank of Ireland guinea note, and also two shillings; and if any one who wanted a guinea, must give a Bank of Ireland note, and also two shillings, it is evident that the paper being of so much less value than the guinea, is by so much depreciated, especially when exchange is the object of inquiry, which is estimated by the value of bullion, or specie; and the guinea, being the same coin current in England and Ireland, is the true standard to which the value of the circulating paper is to be referred. *It was not to be supposed that by any circumstances guineas can be rendered 10 per cent higher in Ireland than in England, when the expense of conveying them from one country to the other, does not amount to 1 per cent.* But further, the circulating paper of Ireland was equally depreciated, when compared with a Bank of England note. The same premium was given to obtain Bank of England notes as guineas; and they commanded the same premium as guineas. It was therefore certain that Bank of Ireland paper was depreciated. The causes and the effect of this depreciation on the rate of exchange they would inquire into afterwards. The point to be considered next was, whether the real state of the exchange was then favourable, or adverse, to Ireland; and this was to be kept separate from the degree or rate in which it was.

359. The exchange was unfavourable to a country when it sent more money away from it, than it received; because, of course, it must defray the expense of sending it. This expense, however, while guineas could be procured by the debtor country, could only amount to the actual

cost of transporting specie from one country to the other, and between Dublin and London did not amount to more than one per cent, including insurances; *but any excess in the rate of exchange beyond this, forms a separate consideration, and must arise from other causes.*

360. The real exchange, that is, where the bills of exchange are bought with specie, as in Belfast, being in favour of Ireland, during the whole of the year 1802, the committee examined documents to ascertain whether, upon the whole year's transactions, England was debtor to Ireland, or the reverse; and the investigation would satisfy those who thought that the state of exchange depends on the balance of payments, that the rise of the Irish exchange was not due to that balance. During that year, upon the different accounts, there could be no possible doubt that a very large balance was due to Ireland in 1802; if it was estimated according to Mr. Marshall's principle, it would be about £1,241,624. It was undoubtedly certain, therefore, that during 1802, the balance was in reality, favourable to Ireland, and there was every reason to believe it would be still more so during that year, 1804. On the lowest calculation, it would not be under £2,400,000. The Committee were therefore decidedly of opinion that the real balance of pecuniary transactions was greatly in favour of Ireland, and consequently, that the real exchange ought to be, and was, under par. They were therefore compelled to seek in other causes than the balance of debt, for the unfavourable exchange then subsisting between the two countries, and when they considered the length of time which it had continued, and its unprecedented rise, and that it was unfavourable not to the debtor, but to the creditor country, they concluded that the balance of debt had operated to lower an exchange rendered unfavourable to Ireland by other causes.

361. Without questioning the policy of the Irish Bank Restriction Act, it was adopted purely from English considerations. There was no drain of specie, the exchange was highly favourable to Ireland; nor had the Bank of Ireland any reason to dread any alarming demand upon it, as the Bank of England had. The restriction, however, was supposed to be a necessary consequence of the restriction in England. And to the consequences of that restriction, the committee attributed the unfavourable state of the exchange.

362. It compelled the Bank to refrain from sending into circulation gold, the only common medium between the two countries. Paper was issued to supply the place of the gold so withdrawn, and at the same time the best and most effective check against the depreciation of paper, namely, convertibility into gold at the will of the holder, was removed. The Bank, by being released from their engagements, were encouraged to make excessive issues, and the only criterion they formerly had, a diminution of their gold, which they were accustomed to look to for judging when their paper became excessive, was taken away.

363. The natural and constant effect of an adverse exchange, correcting itself by diminishing the issue of paper, was also counteracted by this measure. For when the exchange was so adverse as to draw gold out of the country, for every guinea drawn out of the bank, an equal

quantity of paper must be paid in to buy the guineas. Besides that the directors would be probably induced to lessen their discounts, so that the quantity of paper is reduced in a greater degree than the gold withdrawn.

364. Such was the natural practice of banks before the restriction. And such, as stated very clearly by Mr. Colville, was the practice of the Bank of Ireland before the restriction. If prudence had not dictated such a course, necessity would have compelled a diminution of issues, by diminishing the stock of specie, which could only be replaced at a loss, proportionate to the existing rise of exchange, and the committee declared *that in fact as well as in theory, the result of such practice always was, and must be, the redress of the unfavourable exchange.*

365. But the Restriction Act freed the directors from that necessity, and so far from contracting their issues in consequence of the unfavourable exchange, they had increased them, which the state of the exchange would have prevented them from doing, if they had not been relieved of the obligation to pay their notes in cash. The fact of the excessive issues of paper in 1753-54, and the adverse exchange which accompanied it, proved that excessive issues of paper produced a corresponding rise in the rate of exchange, and when the excess of paper was annihilated by the failure of the bankers, the exchange immediately became favourable. The reason was obvious—the nominal rates of exchange are influenced by the medium in which the payments are made, and the quantity of that medium, necessary to effect a given payment, must be increased as the value of the medium diminishes. This must equally take place, whether the payments are made in a degraded or adulterated coin, or in a depreciated paper.

366. The exchange between London and Holland in 1694 was a case in point. The currency of England was then degraded 25 per cent. below its proper value, and the exchange with Holland was 25 per cent. against England. As soon as the coin was reformed, the exchange fell to par. If paper, therefore, by depreciation comes to represent a less quantity of money than it professes to do, it must make the exchange which it has to pay appear unfavourable, in the same manner as coin, which contained less gold than it ought, would do. And the removal of the degradation in the one case, and of the depreciation in the other, would have the same effect in bringing the exchange to its true state.

367. The committee thought it probable that this depreciation in Ireland arose almost entirely, if not solely, from excessive issues of paper. They detailed the extraordinary increase in the Bank's issues, and that, as Mr. Colville admitted, the rise in the exchange was concomitant with these extended issues. In March, 1797, the paper of the Bank was between £600,000 and £700,000, and exchange in Dublin was 5½ to 6½. In April, 1801, the paper was £2,266,000, and exchange rose to 11½ and 13. In January, 1804, the paper was £2,986,999, and exchange rose to 17 and 18. How far these increased issues from the Bank of Ireland facilitated an increase from private bankers was not clearly proved, but it certainly did so to an immense extent, silver notes and L. O. U.'s, especially, were issued with

the greatest profusion. In 1799 the number of bankers issuing notes was eleven; in 1800, it was twenty-three; in 1801 it was twenty-nine; in 1802 it was thirty; and in 1803, forty; the number of notes paying duty, in the same periods, was, in—

	11d.	3d.	4d.
1799 . .	148,112 . .	198,361 . .	104,248
1800 . .	245,673 . .	147,211 . .	65,201
1801 . .	941,894 . .	196,108 . .	95,600
1802 . .	823,673 . .	204,940 . .	67,594
1803 . .	1,110,217 . .	256,801 . .	90,265

The notes under three guineas requiring a 1½d. stamp; those under £10, a 3d. stamp; and those under £50, a 4d. stamp. These immense issues, along with the profusion of silver notes, and the base and counterfeit coin, kept up the prices of all necessaries and manufactures, drove out of circulation what little good silver had been in it; and above all, kept up a high and unexampled rate of exchange against the kingdom, unwarranted in its height and continuance, by any other great or adequate cause than that depreciation, which such extravagant issues had assisted. The total number of houses that issued tokens and notes, according to the best accounts they could procure, was considerably above 200. Mr. Beresford, a banker in Dublin, estimated that the country issues had increased fourfold since the restriction. The committee enumerated some other causes, which might help to increase the unfavourable rate.

368. The repeal of the Restriction Act, from which all these evils flowed, would undoubtedly be the great and effectual remedy for the high and fluctuating rates of the exchange. The common medium of payment being thereby restored, the rise of exchange above par would be limited to the expense of transporting specie, and paper being convertible into gold, its depreciation would be prevented. The inconveniences, however, to which the Bank of Ireland and other banks would be exposed, if such a measure were suddenly adopted, at the present rate of exchange, was a strong argument against its being done at present. But there was no commercial reason against its being done, as the real exchange was undoubtedly in favour of Ireland. The continuance of the restriction was no doubt connected with political considerations, which the committee could not inquire into.

369. Seeing, then, that the removal of the restriction was not to be expected at that period, it only remained to consider what other remedies might be adopted to cure the evil. One which had been suggested, was the consolidation of the two Banks of England and Ireland, but there did not seem to be any likelihood of effecting this. It had also been suggested, that Bank of Ireland paper might be made convertible into Bank of England paper, either in Dublin or London, or the Bank might give bills of exchange on London for them. These means would certainly have the effect of rectifying the exchange. The Bank of Ireland objected to the difficulty and expense of establishing a fund in London for this purpose. But the argument had no weight, because the expense of this would not be so great as the Bank was subject to before the restriction, in order to maintain the convertibility of its notes, and which they must again incur, when the re-

striction should be removed. Besides, the Scotch banks had done the very same thing with the most complete success. The Scotch currency had never varied from par since they had organized a measure of this sort, even during periods of great discredit, and no restriction had been imposed on them, when it was on the Banks of England and Ireland.

370. The undoubted success of this measure, in the case of the Scotch Banks, was a strong argument that the Bank of Ireland should do the same thing. And there was a stronger argument still why the Bank of Ireland should do it. The Scotch Banks, of their own good sense and patriotism, organised this measure, without a precedent, and provided a fund at their own expense, but the Bank of Ireland had now an opportunity of doing it without any difficulty, risk, or expense. The sums to be remitted during that year from England to Ireland amounted to £5,000,000 Irish. This sum, or a portion of it, might, as several of the witnesses said, be appropriated for this purpose. It might be paid into the Bank of England to the credit of the Bank of Ireland, and though no doubt it would be an expense to that Bank, it would furnish a fund to draw upon, by which it could effectually control the exchange, and the evil of the expense would be temporary, the good would be permanent to the Bank and the public. And the Bank having a monopoly and a charter, were bound to think of the public before their own proprietary. In this case, however, it would be found that the interests of the public and the Bank were the same, as the Bank might make a profit out of their exchange dealings. The committee suggested some other minor remedies of the same nature, as auxiliary to the chief one.

371. But all the benefits derived from these remedies would be of little avail, and of very short duration, if they did not at the same time cure the depreciation of Irish paper, by diminishing its over issue. This consequence must necessarily follow from Bank of Ireland notes being made convertible into Bank of England notes, almost as they would be into gold, if the restriction were to cease. For if their fund in London were too rapidly drawn upon at any time, they must immediately limit their issues to lessen the demand, the notes would become of equal value with the English notes, and therefore with guineas, so long as the English notes were at par. *They did in express terms declare their clear opinion that it was incumbent on the directors of the Bank of Ireland, and their indispensable duty, to limit their paper at all times of an unfavourable exchange, during the continuance of the restriction, exactly on the same principle as they would, and must have done, in case the restriction did not exist; and that all the evils of a high and fluctuating exchange were to be imputed to them, if they failed to do so.* The effect which making Bank of England notes procurable in Ireland would have on the exchange, was clearly shewn by the great fall in it in March, April, and May, 1797, when Government passed Bank of England notes in Dublin. It would also have the beneficial effect of making the transition to a resumption of cash payments more easy, whenever other circumstances permitted that event to take place. Nevertheless this reduction in the

quantity of paper should take place gradually and cautiously.

372. But measures should also be taken to reduce the quantity of the private bankers' and others' paper in circulation. The laws respecting the registry of bankers, and the full payment of stamp duties, which were very generally evaded, should be strictly enforced. It might be advisable to forbid all bankers, except the Bank of Ireland, to issue any notes under ten guineas, and as soon as a proper and sufficient silver currency could be procured, all silver notes should be suppressed.

373. The committee called attention to the miserable state of the Irish small currency, and to the circulation of dollars, stamped to pass as tokens. They recommended that the Irish currency should be equalized with the English, by making the Irish shilling 12d., before any new coinage was struck, and that all distinctive marks between the English and Irish copper coinage should be abolished, and that the English copper coinage should be as current in Ireland as the silver and gold coinage.

374. This admirable report is the first parliamentary investigation into the theory of a paper currency, and is remarkable as the first authoritative declaration that it ought to be governed by the foreign exchanges. In this it fully adopted the truths demonstrated by Mr. Boyd, Lord King, and Mr. Parnell, and is in entire accordance with the more celebrated Bullion Report of 1810. It, however, did not discuss the new theory propounded, that the paper currency should be regulated by the mercantile bills offered for discount. This the bullion committee did, and entirely condemned it.—(BULLION REPORT). No one who has paid any attention to the principles of the subject, and carefully considered the facts produced before the committee, can fail to acquiesce in their judgment; and there is one remarkable circumstance, which we must note, as it occurred again before the bullion committee, that not one of the professional witnesses, i. e., the directors of the Bank of Ireland, or the private bankers examined, had attained the smallest glimpse of the principles which governed their own business, and by which they should have directed their policy. Its true principles were clearly seen and announced, solely by the extra-professional witnesses, and laid down by the statesmen who formed the committee.

375. The presentation of this report does not seem to have excited any discussion in the House till many years afterwards; but it seems to have produced a temporary effect on the policy of the bank, for in May, June, and July, 1804, the directors reduced their issue by half a million, and the exchange fell. They increased them again in August, and the exchange rose. In November, 1804, a large loan for Ireland was negotiated in England. This was done by sending over £200,000 of Bank of England post bills to Dublin, and selling them there; they were first advertised at 11½, but only £170,000 were subscribed. They were then reduced to 10, but that did not increase the bidders. They were then obliged to sell them at par, 8½, in order to procure the sums necessary for the public service. These caused the exchange to fluctuate between par and 10 or 11. The Chancellor of the Exchequer (Addington) said that it was a perversion of terms to infer that the depre-

ciation of paper had any real effect on the exchange. He allowed that the excessive issue of paper produced a depreciation. The fact was that in each country there was a different circulating medium, and the depreciation of either could only have a nominal effect on the course of exchange. Mr. Fox was glad to hear that the Chancellor of the Exchequer allowed that an excessive issue caused a depreciation, and that the House was never again to hear the fantastical opinion that paper was not depreciated, but the value of gold raised, as well as that these evils proceeded exclusively from the restriction on the bank. Mr. Fox's exultation was premature. Had he but lived six years longer, he would have found that this fantastical opinion not only reappeared, but was maintained with greater stubbornness and pertinacity than ever, and that too by some of the very statesmen who framed the Irish report. In 1805 the small notes under £1 were abolished, in accordance with the recommendation of the committee. In 1808, by the Act, Statute 1808, c. 103, the capital of the bank was raised from £1,500,000 to £2,000,000. In 1809, Mr. Parnell brought a motion forward in the House of Commons, to assimilate the currency of Ireland to that of England, in accordance with the recommendation of the committee, but it was negatived without a division. The exchange at that time was actually in favor of Dublin, as the Bank of England was now entering on that wild career of excessive issues, which produced the derangement of the English exchanges, which gave rise to the bullion report. During the year 1804, the exchange at Dublin on London gradually diminished from 17, at which it was in March, to 11½ at the end of the year, at which it continued with no remarkable fluctuation for about two years. At the beginning of 1808 it stood about 9½, and then gradually rose in 1809, the Bank of England then extending her issues, and in 1810, at the time of the bullion report, it stood at 8½, the Bank of England note itself being depreciated about 15 per cent. at that time. Mr. Coningham, a London merchant, who was examined before the committee of 1804, and who was of opinion at that time that the Irish paper currency was depreciated, when examined before the bullion committee in 1810, said that the Irish currency had not altered its value, compared to the currency of continental countries, since 1804. In 1812, Lord Stanhope's Act, declaring it a misdemeanour to make a difference in payments between guineas and bank notes, was extended to Ireland, in respect to the Bank of Ireland notes.

376. The Act made in the Irish Parliament in 1797, for confirming and continuing the order in council for restraining cash payments, was continued by the Act, Statute 1802, c. 45; it was further continued by the Act, Statute 1803, c. 44; further continued by the Acts, Statutes 1804, c. 21; 1814, c. 130; 1815, c. 41; 1816, c. 48; and 1818, c. 60. These enacted that the restrictions on the Bank of Ireland should continue for three months after the Bank of England had resumed cash payments. By the Act, Statute 1819, c. 24, the Bank of Ireland was forbidden to cash any notes in terms of the notices which it had given of resuming payments *pari passu* with the Bank of England. And by the same Statute, c. 99, it was enacted that between the 5th April and the 1st November, 1820, the bank should be obliged, on

any one presenting notes to an amount not less than of the value of 60 oz. of gold, calculated at the value of £4 1s. per ounce British, to pay the same in standard gold. Between the 1st November, 1820, and the 1st June, 1821, the same amount of notes was to be paid on demand in gold, at £3 19s. 6d. per ounce; and between the 1st June, 1821, and the 1st June, 1823, the rate was to be at £3 17s. 10½d. per ounce. During the first mentioned period, it might make payments at any rate between £4 1s. and £3 19s. 6d.; during the second, at any rate between £3 19s. 6d. and £3 17 10½d., upon giving three days' notice in the *Dublin Gazette*; and after they had once lowered them, they were not to raise them again. These amounts could only be demanded in ingots, or bars of 60 ounces each. After the 1st June, 1822, the bank might resume payments in coin.

377. In 1821, by the Act, Statute 1821, c. 27, the Bank was allowed to resume payments in cash on the 1st of June of that year, if they chose. No person who was offered payment in coin could demand ingots. But those who were not offered ingots, might demand coin.

378. In 1818 and 1819, which we have already shewn, was a period of monetary derangement in England; there was a general convulsion in Ireland, especially in the South. Nearly every banker in the three southern provinces failed. It was then at last determined to break up the monopoly of the Bank of Ireland, to a certain extent, to encourage the formation of banks more on the Scotch plan of having a very large number of partners. By the Act, Statute 1821, c. 72, the Bank of Ireland was authorised to advance to Government the sum of £500,000 Irish currency, at 4 per cent., for 17 years, to be repaid on the 1st January, 1838. The Bank was allowed to increase its capital from £2,500,000 Irish, at which it then stood, to £3,000,000 Irish. The notes of the Bank of Ireland were also ordered to be received in payment of all sums to the public revenue. It was also enacted that any partnership in Ireland, exceeding six persons, and having their houses of business at any place not less than fifty Irish miles from London, might borrow, owe, or take up any sum or sums of money on their bills, or notes, payable on demand, and make, and issue such notes, at any place more than fifty miles from Dublin. Every member of such a partnership should be liable to the full extent of his means for the payment of these notes. But such partnership were not to have any other privilege, or power conferred upon them, until the 1st of January, 1838, nor until the repayment to the Bank of Ireland of all sums due to it by the government. As fifty Irish miles were equal to sixty-five English ones, this Act confined the monopoly of the Bank to that limit.

379. The very narrow opening which was effected in the monopoly of the Bank of Ireland, by the Act just mentioned, produced no good. All sorts of doubts and legal objections were taken to it, and it was even maintained, and successfully too, that every partner in an Irish joint stock bank must be resident in Ireland. This of course precluded any such plan as having a head office in London with branches in the provinces of Ireland. Thus all English capital was at once excluded from banking in Ireland. By the Act, Statute 1824, c. 73, further facilities were given,

some institutions were commenced, but the Act being insufficient for its purpose, it was repealed by the Act, Statute 1825, c. 42, which was the model, upon which the Joint Stock Banking Act was framed in the following year. By this Act—

I. Any persons exceeding six in number, and not having any house of business within fifty (Irish, i.e. sixty-five English) miles from Dublin may borrow, owe, or take up any sum, or sums of money, on their bills, or notes, at any place in Ireland, beyond the prescribed limit, each member being fully responsible for the payment of all such bills and notes.

II. No such partnership could by themselves, or their agents, pay, issue, or re-issue, within the same limits any of the company's bills, or notes payable on demand, or any bank post bill, or draw upon any agent, within that limit, any Bill of Exchange payable on demand, or for less than £50. Nor were they to issue any such Bills in England, or Dublin, or within fifty miles of it, payable on demand, or at any less time than six months.

III. Any person residing in Great Britain, or Ireland, might subscribe to such a partnership.

IV. Every such banking partnership was to deliver and register at the Stamp office in Dublin, an account of the names of its partners, and of two of them resident in Ireland, who were called the public officers of the company, in whose name they might sue and be sued; and a variety of other particulars.

A number of enactments were also made for the purpose of facilitating legal proceedings by and against such partnerships. By chap. 98 of the same Statute, the Bank of Ireland was forbidden to circulate any more of the tokens, which it had issued in 1804, to supply a better currency than was then in existence. These tokens were not to be current after the 5th January, 1826; and £500,000 was voted out of the consolidated fund, to withdraw them from circulation.

360. A very important Act was also passed in the same year; for, by chapter 79, provision was made to carry out the recommendation of the committee of 1804, that the currencies of Great Britain and Ireland should be assimilated. The Act was to commence on the 5th January, 1826, and after that date the currency of Great Britain was to be the currency of the United Kingdom, and all contracts of every sort and description were to be made in that currency alone. All Irish contracts, and obligations in Irish currency, made before the commencement of the Act, were to be carried into effect, and satisfied by British currency, of the amount of 12-13ths according to Irish currency. Provision was made for cases in which any amount of currency in one came to a fractional part of a penny, or a shilling, in the other. On a given day, to be determined by proclamation, the Irish copper coinage was to be called in, and the British copper coinage substituted. All notes of bankers were in future to be in British currency.

381. The first bank which was formed under the new law, was the Provincial Bank of Ireland. This was begun at the end of 1824, and opened its first branch at Cork in September, 1825. A considerable amount of jealousy was displayed towards it by the Bank of Ireland. The Provincial made its notes payable at its Dublin agents,

and the Bank of Ireland brought an action against them for an infringement of their charter, in 1828, which was decided in their favor. The Provincial Bank presented a £100 note of the Bank of Ireland, at one of its branches, and demanded gold for it, the agent declined to pay it as he had no orders to do so. Upon this the Provincial Bank protested the note for non-payment, but it was held that the Bank of Ireland was not bound to pay its notes in gold, except in Dublin. By the Act, Statute 1828, c. 81, all banks must pay their notes at the place of issue.

382. By the Act, Statute 1824, c. 159 (local and personal), a company was established called the Hibernian Joint Stock Company, or the Hibernian Bank, for the purpose of purchasing and selling annuities, and all public and other securities, real and personal, in Ireland, and to advance money, and make loans, on real and personal security, at legal interest, and on the security of merchandize, and manufactured goods, and it might sue and be sued in the name of the governor, or secretary for the time being. This bank, something of the nature of the Million Bank, is established in Dublin; it does not issue notes, but has acted as agent to some of the country banks.

383. The strong political feeling, which has done so much to retard the advancement of Ireland, vented itself repeatedly in runs upon the banks, especially on the Provincial. These took place in 1828, twice in 1830, 1831, 1833, 1836, 1856, and 1857. The way in which this bank, as well as the other establishments in Ireland have withstood these, proves their solidity, and good management, and is a striking contrast to the wretched system that prevailed before their institution. There have undoubtedly been some failures, as, for instance, the Agricultural and Commercial Bank, which was one of the largest in Ireland, stopped in 1836, after having been in operation little more than two years, and was dissolved a few years afterwards. But there can be little doubt that a solid banking system has been at length founded in that country, and that it will in due time bear its usual fruits in the civilization and improvement of the country.

384. Simultaneously with his Act to regulate the issue of Bank Notes in Scotland, Sir Robert Peel passed an Act for a similar purpose regarding Ireland. The chief provisions of this Act, Statute 1845, c. 37, are as follows.—

I. From and after the 6th day of December, 1845, the clauses in the Bank of Ireland Act, prohibiting banking partnerships from being formed with more than six partners, were repealed. And on and after that day banking partnerships may be founded of any number of persons, and carry on business in Dublin, and within fifty miles of it, as freely as they may beyond that limit, provided all the members are liable for all the debts of the partnerships.

II. The capital of the Bank of Ireland lent to Government, amounting to £2,637,769 4s. 8d., was made chargeable on the consolidated fund of the United Kingdom, subject to redemption. And an annuity of £92,076 18s. 5d. should be paid to the Bank, being interest at 3½ per cent.

III. The Bank was to manage the public debt of Ireland, and pay all the dividends, &c., without any remuneration.

IV. The corporation may be dissolved at any

time upon twelve months' notice to be given after the 1st January, 1855.

V. The clause in the Statute 1759 (the Bankers' Act), prohibiting public officers from being partners in banks, was repealed.

VI. Bank of England notes might circulate in Ireland, but were not to be legal tender there.

VII. All bankers, claiming to issue notes, were to give notice, within a month after the passing of the Act, to the Commissioners of Stamps and Taxes in London, who were to ascertain the average amount of notes which the banker had in circulation during the year preceding the 1st May, 1845, and it should be lawful for the banker to issue from the 6th of December, 1845, such average of notes, together with notes to the amount of gold and silver coin held by him. And after the 6th of December, 1845, no person was to commence issuing notes.

VIII. If any banks had become united during the year mentioned, the commissioners might ascertain the average issued by each banker, and the united bank might issue an amount equal to the average of each separate one.

IX. If two or more banks unite after the passing of the Act, the united bank may issue to the amount of the separate banks, together with the monthly average of the gold and silver coin held by them.

X. Banks, which possessed the privilege of issuing notes, might contract with the Bank of Ireland to issue its paper instead of their own, but after they had once discontinued their privilege of issue, they were not to resume it.

XI. After the 6th December, 1845, no banker was to have in circulation, upon an average period of four weeks, a greater amount of notes than his authorised issue, together with the average amount of gold and silver coin held by him during the same four weeks.

XII. All bank notes after the 6th December, 1845, were to be for a certain number of pounds sterling, without any fractional parts of a pound, with a penalty of £20 for every breach.

XIII. All bankers issuing notes after the 6th December, 1845, were to transmit weekly accounts to the Commissioners of Stamps and Taxes, shewing the number of notes they had in circulation the preceding Saturday at the close of business, distinguishing the notes of £5 and upwards, and those below £5, and also a daily account of the gold and silver coin held by them, at each of the places of issue in Ireland, and all other calculations, necessary to verify the amount of his circulation during each period of four weeks.

XIV. The amount of silver coin, upon which notes might be issued, was not to exceed one-fourth part of the gold. And if any banker issued in excess of his authorised issue, he was to forfeit the excess.

XV. After the 1st of January, 1846, no notes, bills, drafts, or undertakings in writing, were to be made, issued, or negotiated in Ireland, for any less sum than twenty shillings, under a penalty of not less than £5, or more than £20, for each offence.

XVI. All promissory notes, bills, drafts, or undertakings in writing, being negotiable or transferable, for the payment of 20s., or any sum above that and under £5, or any similar instrument, upon which a similar sum remains undis-

charged, and which should be issued in Ireland after the 1st January, 1846, shall specify the names and places of abode of the persons respectively, to whom, or to whose order the same shall be payable, and shall bear date before, or at the time of drawing, or issuing thereof, and not any day after it, and shall be made payable within the space of twenty-one days, next after the date thereof, and shall not be transferable or negotiable after that date. Every indorsement upon it shall be made before that date, and must bear date at, or not before, the making of it; and must state the name and abode of the person, to whom, or to whose order the money contained in such instrument is to be paid. All signatures and indorsements must be attested by one witness at least. Forms of such instruments are given. And all instruments drawn and issued contrary to this clause were to be absolutely void.

XVII. If anybody politic, or corporate, or any person, after the 1st of January, 1846, should make, sign, issue, or re-issue, in Ireland, any promissory note, payable on demand to the bearer thereof, for any sum of money less than £5, except the bankers authorized to do so, such person, or body, should forfeit the sum of £20 for each note so made, signed, issued, or re-issued.

XVIII. A similar penalty on any body politic, or corporate, or person, who should, after the passing of the Act, publish, utter, or negotiate in Ireland, any promissory or other note, (not being the bank note of a banker authorized to issue such notes), or any bill, draft, or undertaking in writing, negotiable or transferable, for the payment of 20s., or less than £5, or on which a similar sum remained undischarged.

XIX. Provided that nothing should extend to prevent any person drawing a cheque on his banker for such a sum.

XX. After this Act, all companies of bankers in Dublin, and within fifty miles of it, shall have the same powers and privileges of suing and being sued, and other legal privileges, as were enjoyed by the companies established beyond that limit.

386. Since the passing of this Act, no events of a remarkable character have occurred, except the failure of the Tipperary Bank in 1856, which caused a severe run on the other banks in the rural districts of the South of Ireland, but it was well met by them, and no other disaster occurred. In 1857, the panic caused by the failure of the Western Bank of Scotland, and two very large English banks, caused a general run upon all the Irish banks, more or less. The Bank of Ireland advanced £250,000 to the other banks, but that was not sufficient, and they were obliged to send over £1,200,000 from England, but no failure took place. At the present time, there are five joint stock banks in Ireland, besides the Bank of Ireland, which issue notes, and two which do not.

Some considerations on the two grand staple commodities of England, and on certain establishments, wherein the public good is very much concerned. Humbly presented to the Parliament. By Sir Balthazar Gerbier. Knight. London. 1651.

This is the earliest tract we have been able to discover, recommending the establishment of bank in England. (GERBIER.)

Seasonable observations ; humbly offered to His Highness the Lord Protector. By Samuel Lambe, of London, merchant. 1658.

This tract, except the one quoted above, is the earliest we have been able to discover, which advocates the establishment of banks in England. It sets forth the great advantages which the Dutch derived from their banks, in respect of their stock, which was *increased* by banks. The benefits attributed by the author to the banks in Holland were:—"1. They have raised themselves from poor, distressed, to high and mighty states. 2. They have increased the general stock of their country so much, that they can, when they please, ingross the particular commodity of one country, and sell it again at their own price, in the same, or another, that wants it. 3. They maintained wars many years with the King of Spain, and hired foreign soldiers to save their own people in that war and received in ready money (with which they paid their armies), the proceeds of their utensils of war, and other commodities they sold to their enemies, which they bought with *imaginary money* in Banks, and so furnished the Spaniard with those things he wanted, for their own profit, which otherwise they knew another nation would else have done. 4. They have increased their trade, and thereby grown so rich and strong in shipping and mariners, that they have forced the King of Spain to a peace with them. 5. To make their own terms with the King of Denmark. 6. To hold the King of France to such conditions as have not always pleased him. 7. To make war with the English at sea, to whom they there always yielded, and acknowledged obedience and submission. 8. To rule over many petty kings and principalities in the East Indies, and other places, where they have power to overcome them. By the help of banks they so much augment their stocks, that they set out so many hundred of busses, and other fishing boats, yearly, to catch herring and codfish in our seas, with which they serve all Christendom, to their incredible gains, and formerly our own nation, to our great loss, decay of our fishery." He then sets forth, with great minuteness, the advantages which the English would derive from them.

He then explains the nature and constitution of a bank, and it well deserves the reader's attention, because it exactly coincides with what we have shewn to be the meaning and function of a "bank," in the preceding sections. Lambe says, "A bank is a certain number of sufficient men of estates and credit *joined together* in JOINT STOCK, being as it were, the general cashkeepers or treasurers, of that place where they are settled; letting out *IMAGINARY MONEY* at interest at £2½ or £3 per cent. to tradesmen, or others, that agree with them for the same, and making payment thereof by assignation, and passing each man's account from one to another, with much facility and ease, and saving much trouble in receiving and paying money." Appended to this tract, Lambe added proposals for establishing a bank at London. He says, "Most men will desire to have money there, *that they may have credit in bank, two or three times the value thereof*, for he will not see to be of any estate or worth, that hath not some money in bank, to procure credit there without trouble against he have occasion for it." And among other functions this bank was to perform

was, "That they let out *imaginary money* or credit upon ticket at £2½ and £3 per cent. at the most."

This tract is extremely important, because the writer, who was a merchant, thoroughly understood that banks *increase* capital, and he saw too, exactly what we have shewn to be the case in the preceding section, that *banking consists in the creation of credit*—quite contrary to the great misconception of its nature and effects, which is universally prevalent at the present day.

The Tradesman's Jewel, or a safe, easy, speedy, and effectual means for the incredible advancement of trade, and multiplication of riches, &c., by making bills become current instead of money. By W. Potter. London, 1659.

An expedient for taking away all impositions, and for raising a revenue without taxes, by creating Banks for the Encouragement of Trade. By Francis Cradocke. London, 1660.

Case of the Bankers and their Creditors, Stated and Examined. London, 1674.

The Mystery of the New Fashioned Goldsmiths, or Bankers' Discovered. London, 1676.

This short tract is the source from which most of the details of the rise of banking are taken.

Proposals to the King and Parliament; or, a Large Model of a Bank, &c. By M. Lewis, D.D. London, 1678.

Corporation Credit; or, a Bank of Credit made current by common consent in London, more useful and safe than money. London, 1682.

England's Interest; or, the Great Benefit to Trade, by Banks, or Offices of Credit in London, &c., 1682.

An Account of the Constitution and Security of the General Bank of Credit. London, 1683.

Several Objections sometimes made against the Office of Credit fully answered. London, 1683.

A Brief Account of the Intended Bank of England. London, 1694.

This pamphlet is said to be by Mr. Michael Godfrey, the first Deputy Governor of the Bank.

Some Useful Reflections upon a Pamphlet called a Brief Account of the Intended Bank of England, whereunto is annexed a Short Description of Doctor Chamberlain's Bank. London, 1694.

Observations upon the Constitution of the Company of the Bank of England; with a Narrative of their Late Proceedings. London, 1694.

Some Observations upon the Bank of England. London, 1695.

This gives an account of several existing banks at that period.

A Proposal for a National Bank, consisting of Land, or any other valuable securities or deposits, with a Grand Cash for Returns of Money. By Robert Murray. London, 1695.

Some Account of the Transactions of Mr. William Paterson, in Relation to the Bank of England. By J. S. London, 3rd July, 1695.

This tract gives an account of Paterson's efforts to found a national bank, and also of the cause of his quarrel with the directors of the Bank of England, and his withdrawal from it.

Conferences on the Public Debts at the Wednesday Club in Friday Street. By William Paterson. London, 1695.

A Short Account of the Bank of England. By Michael Godfrey. (GODFREY). London, 1695.

A Proposal to the Bank of England, and the Banks now setting up; with some few considerations about Goldsmiths' Notes. London, 1695.

A safe and easy method for supplying the want of Coin; with some Remarks upon the Bank of England. London, 1695.

A Proposal, by Dr. Hugh Chamberlain, in Essex Street, for a Bank of Secure Current Credit, to be founded upon Land. London, 1695.

The several Articles or Parts of the Proposal upon Land Credit, rationally explained. London, 1695.

Proposals for a National Land Bank. By John Briscoe. London, 1695.

A Bank Dialogue; or, Doctor Chamberlain's Land Bank, explained by way of Question and Answer. London, 1695.

Positions supported by their Reasons, explaining the Office of Land Credit. London, 1695.

A Brief Account of the Nature and Advantages of the Land Bank, as proposed by Dr. Hugh Chamberlain. London, 1695.

Petition of Creditors of Goldsmiths.

A Bank Dialogue, between Dr. H. C. and a Country Gentleman. London, 1696.

An Answer to a late Pamphlet, intituled Reasons offered against the intended project, commonly called the National Land Bank. 1696.

The Constitution of the Office of Land Credit. By Hugh Chamberlain, senior. London, 1696.

Some Remarks upon a late nameless and scurrilous libel, entitled, a Bank Dialogue, between Dr. H. C. and a Country Gentleman. London, 1696.

Mr. J. Briscoe, a Director in the National Land Bank, his Defence of Dr. Hugh Chamberlain's Bank, or Office of Land Credit. London, 1696.

A Reply to the Defence of the Bank; setting forth the unreasonableness of their slow payments, &c. By a True Lover of his Country and the present Government. London, November 16, 1696.

This contains several curious details of the method of payment by the bank during its partial suspension, and of the speculation that went on in its notes. The author saw, too, what we have called Gresham's law of the currency. He lays it down as a general maxim, "When two sorts of coin are current in the same nation of like value by denomination, but not intrinsically, that which has the least value will be current, and the other (as much as possible) will be hoarded." It is an able pamphlet.

Reasons for encouraging the Bank of England. London, 1696.

The Tryal and Condemnation of the Trustees of the Land Bank at Exeter Exchange, for Murdering the Bank of England, &c. London, 1696.

A Casual Discourse about Banks, between a Brigadier, a Lawyer, a Merchant, and a Goldsmith. London, 1696.

A second ditto.

A Letter to a Member of Parliament, concerning the Bank of Scotland, and the lowering of interest of money. Edinburgh, 1696.

A Letter to a Friend concerning Credit; and how it may be restored to the Bank of England. London, 1696.

Proposals for a National Bank. London, 1697.

A Discourse concerning Banks. London, 1697.

Said to be by a director of the Bank; it contains accounts of the different kinds of banks then existing.

The Bank of England, and their present method of paying, defended. By P. H. London, 1697.

A second part of a Discourse concerning Banks. London, 1697.

This contains some censures on the management of the bank, which had brought it into discredit.

A Letter to a Friend concerning the Credit of the Nation; and with relation to the present Bank of England as now established by Parliament. London, 1697.

Some Thoughts of the Interest of England. London, 1697.

Some Considerations offered against the Continuance of the Bank of England, in a Letter to a Member of the present Parliament. London, 1700.

Remarks upon the Bank of England, occasioned by the present Discourse concerning the intended prolongation of the Bank. By a Merchant of London, and a true lover of our Constitution. London, 1706.

Argument against Prolonging the Bank, shewing the dangerous consequences of it to our Constitution and Trade. London, 1706.

A Short View of the apparent dangers and mischiefs from the Bank of England. London, 1707.

The mischievous and dangerous consequences of further establishing the Bank of England, considered. London, 1708. Same as A Short View, 1707.

The Ruin of the Bank of England and all Public Credit inevitable. By John Holland. London, 1715.

This is by Mr. Holland, the founder, and first governor of the Bank of Scotland. It gives some details of its formation, and of the liberal treatment of the author by the Scotch. They presented him with several thousand pounds, beyond what he had stipulated for, and he speaks of the "justice, civility, and generosity of the Scots nation." So that the Scotch treated the founder of their bank more handsomely than the English did Paterson.

A Comparison between the Proposals of the Bank and the South Sea Company, wherein is shewn that the Proposals of the first are much more advantageous to the public than those of the latter. London, 1720.

Proposals for Restoring Credit; for Making the Bank of England more Useful and Profitable, &c. London, 1721.

The Eyes of Ireland Open; being a Short View of the Project for Establishing the intended Bank of Ireland. London, 1722.

An Honest Scheme for Improving the Trade and Credit of the Nation; for Increasing the Profits of the Bank of England, &c. London, 1727.

An Historical Account of the Establishment, Progress, and State of the Bank of Scotland, and of the several attempts that have been made against it, and the several interruptions and inconveniences which the Company has encountered. Edinburgh, 1728.

A Letter containing Remarks on the Historical Account of the Old Bank. By a Gentleman concerned in neither Bank. Edinburgh, 1728.

An Appeal to the People of England, the Public Companies, and Monied Interest, on the Renewal of the Charter of the Bank. London, 1742.

Charter of the British Linen Company. Edinburgh, 1746.

This is the charter incorporating the British Linen Company, with a clause granting powers of banking. In pursuance of this clause the company has developed itself into one of the most powerful and wealthy of the Scotch banks. We have mentioned in section 301, that a question has recently been raised, as to whether the three chartered banks in Scotland enjoy the privilege of limited liability. It was universally supposed, until very recently, that they did. The point has been raised within the last few years, and it is quite clear from the words of the charter, that the *British Linen Company does not enjoy limited liability, but is a bank with UNLIMITED LIABILITY.* The charter says, "We will, moreover, and by these presents for us, our heirs, and successors, do grant to the said corporation, That in order to answer ALL JUST DEMANDS on the said corporation, the general court shall have power from time to time, as they shall see cause, to call in, or direct to be paid, from their respective members for the time being, proportionally, according to their respective shares, in the capital stock of the said corporation, any sum of money, as by such general courts shall be from time to time adjudged necessary to be called in, or raised for the exigencies of the said corporation, to be paid into such hands, as they shall appoint for that purpose, so as such call do not at any one time exceed ten pounds for every hundred on the capital, and so as there be an interval of thirty days at least, between every such call." It is quite clear that these words render every member of the corporation liable to contribute to the payment of all its debts, in proportion to his stock.

Considerations relating to the two banks established in Edinburgh. 1762.

Remarks on the proposed plan for regulating the paper currency of Scotland. London, 1765.

Precipitation and fall of Messrs. Douglas, Heron and Co., late bankers, Ayr. Edinburgh, 1778.

The Bank of England's Vade Mecum; a sure guide. London, 1782.

A copy of the Charter of the Corporation of the Governor and Company of the Bank of England. London, 1788.

A few reflections upon the present state of Commerce and public credit, with some remarks upon the late conduct of the Bank of England. By an old Merchant. London, 1796.

A defence of the bank in restricting discounts, and in condemnation of the issue of Exchequer Bills in 1793.

A correct detail of the Finances of this Country; to which is added, an history of the origin, progress, and present state of the Bank of England. London, 1797.

A Letter to Sir William Pulteney, Bart., in consequence of his proposal for establishing a new Bank. London, 1797.

Two Letters to the Right Hon. W. Pitt, Chancellor of the Exchequer, on a National Bank. By

Edward Tatham, D.D., Rector of Lincoln College, Oxford. London, 1797.

Reports from the Committee of Secrecy of the House of Lords on the state of the Bank. 1797.

Reports from the Committee of Secrecy of the House of Commons on the state of the Bank. 1797.

Observations on the establishment of the Bank of England, and on the paper circulation of the Country. By Sir Francis Baring, Bart. London, 1797.

Further do.

A concise and authentic History of the Bank of England. By E. F. Thomas Fortune. London, 1798.

The iniquity of Banking; a bank note proved to be an injury to the public, and the real cause of the present exorbitant price of provisions. Two Parts. London, 1800.

Refutation of certain misrepresentations relative to the nature and influence of Bank Notes, and as stated in the pamphlet of Walter Boyd, Esq., and Mr. William Frend. By T. S. Surr. London, 1801.

The effect of paper money on the price of Provisions, &c. By William Frend. London, 1801.

A Letter to the Right Hon. William Pitt, on the influence of the stoppage of issues in specie at the Bank of England on the prices of Provisions, and other commodities. By Walter Boyd, Esq., M.P. London, 1801.

Observations on the publication of Walter Boyd, Esq. By Sir Francis Baring, Bart. London, 1801.

An Inquiry into the nature and effects of the Paper Credit of Great Britain. By H. Thornton, Esq., M.P. London, 1802. Very scarce.

Considerations on the propriety of the Bank of England resuming its payments in specie at the period prescribed by the Act 37 Geo. III. By Jasper Atkinson. London, 1802.

Guineas an unnecessary and expensive incumbrance on Commerce; or, the impolicy of repealing the Bank restriction Bill considered. London, 1802.

An Inquiry into the depreciation of Irish Bank paper. Dublin, 1803.

Thoughts on the effects of the Bank restrictions. By Lord King. London, 1804.

Observations upon the state of Currency in Ireland, and upon the course of exchange between Dublin and London. By Henry Farnell, Esq. Dublin and London, 1804.

An Essay upon the principle of commercial exchanges, and more particularly of the exchange between Great Britain and Ireland; with a practical inquiry into the effects of the Bank restrictions. By John Leslie Foster. London, 1804.

Report from the Committee on the circulating paper, current coin, and exchange of Ireland. House of Commons, 1804.

One of the most valuable reports on the subject, and, with the Bullion Report of 1810, forms one of the great landmarks of Political Economy.

The high price of bullion a proof of the depreciation of bank notes. By David Ricardo. London, 1809.

An Inquiry into the effects produced on the national currency, and rates of exchange, by the bank restriction bill, explaining the cause of the high price of bullion. By Robert Mushet. London, 1810.

Report from the Select Committee of the House

of Commons on the high price of Gold Bullion. 1810.

This Report is one of the great landmarks in Political Economy, and must be carefully studied by every one who would master the subject. It is not free from some erroneous views. (BULLION REPORT). This Report called forth a host of pamphlets attacking and defending it. A list of some of these will be found appended to the article on the Report.

Bank Notes the cause of the disappearance of guineas, and of the course of Exchange being against us, while the Balance of Trade is in our favour. By T. Hopkins. London, 1810.

Letters on Country Banks. By J. Bradney, London, 1810.

Utility of Country Banks. Hatchard. London, 1810.

Principles of Banks and Banking. By General Sir James Stewart. London, 1810.

The real cause of the depreciation of the National Currency explained, and the means of remedy suggested. London, 1810.

An inquiry into the effects produced on the National Currency and the Rates of Exchange by the Bank Restriction Bill, explaining the cause of the high price of Bullion, &c. By Robert Mushet, of the Mint. London, 1810.

Histoire de la Banque de l'Angleterre, et considérations sur les grandes Banques de circulation. By M. De Guer. Paris, 1810.

Thoughts on the expediency of establishing a new Chartered Bank, &c. By Joseph Marryat, Esq., M.P. London, 1811.

Brief thoughts on the present state of the Currency of this Country. By a Merchant. Edinburgh, 1812.

Proposals for an economical and secure Currency, with observations on the profits of the Bank of England. By David Ricardo. London, 1816.

Reports from the Lords' Committees, appointed a secret committee to inquire into the state of the Bank of England, with reference to the expediency of the resumption of cash payments, with minutes of evidence and an appendix. 1819.

Reports from the secret committee of the House of Commons, on the expediency of the Bank resuming cash payments. 1819.

Paper against Gold; or, the History and Mystery of the Bank of England. By William Cobbett. London, 1821.

An essay on the general principles, and present practice, of Banking in England and Scotland. London, 1823.

Facts relative to the Bank of England, explaining the nature and influence of the Bank Charter, with a view of the cause and consequences of the suspension and restoration of the use of standard coin. London, 1823.

Report from the Lords' Committees, appointed a select committee to enquire into the state of circulation of Promissory Notes under the value of £5 in Scotland and Ireland. 1826.

Report from the select committee of the House of Commons on Promissory Notes in Scotland and Ireland. 1826.

An attempt to explain from facts, the effect of the Issues of the Bank of England upon its own interests, public credit, and Country Banks. By Robert Mushet. London, 1826.

Observations on Paper Money, Banking, Over-

trading, &c. By Sir Henry Parnell, M.P. London, 1827.

An address to the proprietors of Bank Stock, the London and Country Bankers, and the public in general, on the affairs of the Bank of England. London, 1828.

A Letter to Lord Grenville, on the effect ascribed to the resumption of Cash Payments on the value of the Currency. By Thomas Tooke. London, 1829.

Remarks on the question of again permitting the issue of £1 notes by the Bank of England, and also by country banks. London, 1830.

Historical sketch of the Bank of England; with an examination of the question as to the prolongation of the exclusive privileges of that establishment. By J. R. McCulloch. London, 1831.

Paper and gold compared; also a plan for a National Bank, &c. London, 1832.

The life and adventures of the Old Lady of Threadneedle street, containing an account of her numerous intrigues with various eminent Statesmen of the past and present times. London, 1832.

A plain statement of the power of the Bank of England, and of the use it has made of it; with a refutation of the objections made to the Scotch system of Banking, and a reply to the "Historical sketch of the Bank of England." By Sir Henry Parnell, M.P. London, 1832.

Report from the Committee of Secrecy on the Bank of England Charter, &c. (Commons), 1832.

The History of Banking in Ireland. By J. W. Gilbart. London, 1836.

Report from the Committee on Joint Stock Banks. (Commons), 1836.

Ditto. 1837.

The History and Principles of Banking. By J. W. Gilbart. 3rd Edition. London, 1837.

A Letter to the Right Hon. Lord Viscount Melbourne, on the causes of the recent derangement in the Money Market, and on Bank Reform. By R. Torrens, Esq., F.R.S., London, 1837.

A Defence of the Joint Stock Banks, an examination of the present Monetary Difficulties, and hints for the future management of the Circulation. By David Salomons, Esq. London, 1837.

The causes and consequences of the pressure upon the Money Market, with a statement of the action of the Bank of England, from 1st October, 1833, to the 27th December, 1836. By J. Horsley Palmer, Esq. London, 1837.

Reflections suggested by a perusal of Mr. J. Horsley Palmer's pamphlet, on the causes and consequences of the pressure on the Money Market. By Samuel Jones Loyd. London, 1837.

Observations on the recent pamphlet of J. Horsley Palmer, Esq., &c. By Samson Ricardo, Esq. London, 1837.

The cause of the present Money Crisis explained, in answer to the pamphlet of Mr. J. Horsley Palmer, and a remedy pointed out. By W. Bennison. London, 1837.

Reply to the Reflections, &c., &c., of Mr. Samuel Jones Loyd, &c. By J. Horsley Palmer. London, 1837.

A Letter to the Honourable the Secret Committee of the House of Commons, upon Joint Stock Banks. By Alfred. London, 1837.

Thoughts on the Principles of Banks, and the wisdom of Legislative interference. London, 1837.

An Examination of the Report of the Joint Stock Bank Committee. By T. Joplin. 1837.

Remarks upon some prevalent errors with respect to Currency and Banking. By George Warde Norman. London, 1838.

An Inquiry into the causes of the pressure on the Money Market during the year 1839. By J. W. Gilbart. London, 1840.

A Defence of Joint Stock Banks, and country issues. By Samuel Bailey, of Sheffield. London, 1840.

Report of the Committee of the House of Commons on Joint Stock Banks of Issue. 1840.

Ditto. 1841.

The Currency Question; an examination of the evidence on banks of Issue, given before a Select Committee of the House of Commons in 1840. By G. M. Bell. London, 1841.

The Country Banks and the Currency; an examination of the evidence on Banks of Issue, given before a select committee of the House of Commons in 1841. By G. M. Bell. London, 1842.

Letters on Currency, addressed to the Right Hon. F. T. Baring. By J. W. Cowell. London, 1843.

The Currency and the Country. By J. G. Hubbard. London, 1843.

An Inquiry into the Currency Principle, the connection of the Currency with prices, and the expediency of a separation of Issue from Banking. By Thomas Tooke. London, 1844.

An Inquiry into the practical working of the proposed arrangements for the renewal of the Charter of the Bank of England, and the regulation of the Currency, &c. By Robert Torrens. London, 1844.

Thoughts on the separation of the departments of the Bank of England. By Samuel Jones Loyd. London, 1844.

On the regulation of Currencies, and the working of the new Bank Charter Act, &c. By John Fullarton. London, 1844.

A Financial, Monetary, and Statistical History of England, from the Revolution of 1688 to the present time. By Thomas Doubleday. London, 1847.

Capital, Currency, and Banking. By James Wilson, Esq., M.P. London, 1847.

Suggestions for the regulation of Discount by the Bank of England. London, 1847.

Report from the Committee upon Commercial Distress (Lords). 1848.

Ditto (Commons). 1848.

The Bank Charter ought not to be renewed. By An Ex M.P. London, 1854.

History of the Bank of England. By John Francis.

The History of Banking; with a comprehensive account of the origin, rise, and progress of the Banks of England, Ireland, and Scotland. By William John Lawson. 2nd Edition. London, 1855.

Past and present policy of the Bank of England, the Banking Acts of 1844-45; or free trade in Banking. By an Old Banker. Edinburgh, 1855.

The Elements of Banking. By J. W. Gilbart. 3rd Edition. London, 1855.

The Philosophy of Joint Stock Banking. By G. M. Bell. London, 1855.

A practical treatise on Banking. By J. W. Gilbart, F.R.S. 6th Edition. London, 1856.

The Theory and Practice of Banking; with the elementary principles of Currency, Prices, Credit, and Exchange. By Henry Dunning Macleod. London, 1855-56.

On the Bank Charter Act of 1844, its principles and operations; with suggestions for an improved administration of the Bank of England. By Thos. Tooke, F.R.S. London, 1856.

Suggestions for the renewal of the Bank of England Charter; and for a Decimal Coinage. By Charles Tennant. London, 1856.

The principles and practical operation of Sir Robert Peel's Bill of 1844, explained and defended, &c. By R. Torrens, F.R.S. 3rd Edition. London, 1857.

Sir Robert Peel's Act of 1844, regulating the issue of Bank Notes, vindicated. By G. Arbuthnot. London, 1857.

Tracts on the Currency, &c. By Lord Overstone. London, 1858.

The Bank Charter Act of 1844; its theory and practical effects on Commercial and Monetary Transactions, &c. London, 1858.

Banking; its Utility and Economy. By Thompson Hankey, Esq. London, 1859.

Historical Sketch of the Rise and Progress of Banking in the United States of America.

386. We shall now cross the Atlantic, and trace the rise and progress of banking and paper currency in the country most nearly connected with us by blood and commercial relations, and in which it arose almost contemporaneously with England. There is no country in which the phenomena of paper money may be studied with greater advantage than in the United States of America, where it has become a kind of hereditary disease. There is no country in which it has undergone such a long-continued and inveterate depreciation. The history of banking and paper currency in the United States may be divided into four periods:—

I. The era of *Provincial* paper, in which each province did that which was right in its own eyes, issued paper money *ad libitum*, and declared it legal tender. This was brought to an end by an Act of the Imperial Parliament in 1763, putting down this legal tender paper.

II. The era of *Continental* paper, or the paper issued by the National Government during the War of Independence.

III. The era of a National Bank, which, with some interruptions, endured from 1782 to 1836.

IV. The era of the abolition of a National Bank since 1836.

387. We are fortunate in possessing a history of Massachusetts, by Mr. Hutchinson, the lieutenant-governor of the province, who, when speaker of the House, devised and carried the bill for the abolition of the paper money. In his history we have a full account of the paper currency which afflicted it so long. We shall present our readers with a series of extracts from it, showing how admirably the writer had seized the true principles of a paper currency, and how clearly and firmly he saw the great truths which were only established in England after the most protracted conflicts. The following passages from this writer exhibit a brilliant contrast to the pitiable figure made by the ministry, the bank directors, and the mercantile witnesses of

England, in the great currency discussions from 1804 to 1819, and even to a later period. It will be seen that the great truths, established with such arduous labour by the Irish Committee of 1804, the Bullion Committee of 1810, and the Committee of 1819, and for which our English economists have obtained so much credit, were perfectly well known to this admirable writer in 1747.

388. The Stuart dynasty had afflicted the colonies with the same grievances as England. The charter of Massachusetts had been forfeited, like so many in this country. The sturdy colonists were animated with the same hatred of the French, and their tyrants, as their kinsmen in the mother country. The revolution of 1688 was, therefore, hailed with the same enthusiasm on both sides of the Atlantic. New England burned for the conquest of New France. No sooner, therefore, was war declared between the parent countries, than the colonists prepared for a similar contest. The French Canadians attacked the English settlements, and the New Englanders determined to undertake the conquest of Acadia and Canada. In May, 1690, the first Congress in the New World was held under the presidency of Massachusetts. Expeditions against both the French settlements were fitted out. That against Acadia succeeded, there being merely a handful of settlers there. But the much greater expedition against Canada, directed simultaneously against Montreal and Quebec, failed completely. We now quote from Mr. Hutchinson, the historian of Massachusetts.

389. "The Government was utterly unprepared for the return of the forces. They seem to have presumed not only upon success, but upon the enemy's treasure to bear the charge of the expedition. The soldiers were on the point of mutiny for want of their wages. It was utterly impracticable to raise in a few days, such a sum of money as would be necessary. An Act was passed for levying the sum, but the men could not stay until it should be brought into the treasury. The extreme difficulty to which the Government was thus reduced, was the occasion of the first bills of credit ever issued in the colonies, as a substitute in the place of money. The debt was paid by paper notes, from two shillings to ten pounds denomination, which notes were to be received for payment of the tax, which was to be levied, and all other payments in the treasury. This was a new experiment. They had better credit than King James's leather-money in Ireland about the same time. But the notes would not command money, nor any commodities at money price. Sir William Phipps, it is said, exchanged a large sum at par, in order to give them credit. The soldiers in general were great sufferers, and could get no more than 12s. or 14s. in the pound. As the time of payment of the tax approached, the credit of the notes was raised, and the Government allowing five per cent. to those who paid their taxes in notes, they became better than money. This was a gain to the possessor, but it did not restore to the poor soldier what he had lost by the discount.

"The Government, encouraged by the restoration of credit to their bills, afterwards issued others for charges of Government. They

obtained good credit at the time of their being issued. The charges of Government were paid in this manner from year to year. Whilst the sum was small, silver continued the measure, and bills continued their value. When the charges of Government increased, after the second expedition to Canada, in 1711, the bills likewise increased, *and in the same, or greater proportion, the silver and gold were sent out of the country.* There being a cry of scarcity of money in 1714, the Government caused £50,000 to be issued, and in 1716, £100,000, and lent to the inhabitants, to be paid in at a certain time; and, in the meantime, to pass as money. Lands were mortgaged for security. As soon as the silver and gold were gone, and the bills were the sole instruments of commerce, pounds, and shillings, and pence, were altogether ideal, for no possible reason could be assigned why a bill of 20s. should bear a certain proportion to any one quantity of silver, more than another. Sums in bills were drawing into the treasury from time to time by the taxes, or payment of the loans, but then other sums were continually issuing out, and all the bills were paid and received, without any distinction, either in public, or private payments, so that, for near forty years together, the currency was in much the same state as if £100,000 sterling had been stamped in pieces of leather, or paper of various denominations, and declared to be the money of the government, without any further sanction than this, that, when there should be taxes to pay, the treasury would receive this sort of money, and that every creditor should be obliged to receive it from his debtor. Can it be supposed that such a medium would retain its value? In 1702, 6s. 8d. was equal to an ounce of silver. In 1749, 50s. was judged equal to an ounce of silver. I saw a 5s. bill which had been issued in 1690, and was remaining in 1749, and was then equal to 8d. only in lawful money, and so retained but about one-eighth of its original value. Such was the delusion, that not only the bills of the Massachusetts government passed as money, but they received the bills of the government of Connecticut, New Hampshire, and Rhode Island, also as currency. The Massachusetts bills passed also in those governments."

390. "The affair of the war," says the same historian, vol. ii., p. 206, "had so engaged the attention of all persons, that we hear little of party disputes, and discord, for five or six years past; but as soon as they were delivered from enemies without, a contention began within, from a new cause, the effects of which were felt many years together. The paper bills of credit were the cause of this contention. So many bills had been issued for the charges of the war, particularly the large sum of £40,000, issued for the Canada expedition, that they were become the sole instrument and measure of commerce, and silver and gold were entirely banished. Of two instruments, one in use in a particular state only, the other with the whole commercial world, it is easy to determine which must leave that particular state, and which remain. The currency of silver and gold entirely ceasing, the price of everything bought or sold was no longer compared therewith, but with the paper bills, or rather with mere ideal pounds, shillings, and pence. *The rise of exchange*

with England was not attributed to the true cause, the want of a fixed staple medium, but to the general bad state of the trade. It was thought that increasing the paper bills would enliven and reform the trade. Three parties were formed, one very small, which was for drawing in the paper bills, and depending upon a silver and gold currency. Mr. Hutchinson, one of the members for Boston, was among the most active of this party. He was an enemy all his life to a depreciating currency, upon a principle very ancient, but too seldom practised upon, *nil utile quod non honestum*.

"Another party was very numerous. These had projected a private bank, or rather had taken up a project published in London in 1684; but this not being generally known in America, a merchant in Boston was the reputed father of it. There was nothing more in it than issuing bills of credit, which all the members of the company promised to receive as money, but at no certain value, compared with silver and gold; and real estates to a sufficient value, were to be bound as a security that the company should perform their engagements. They were soliciting the sanction of the general court, and an act of government to incorporate them. This party generally consisted of persons in difficult, or involved circumstances in trade, or such as were possessed of real estates, but had little or no ready money at command, or men of no substance at all, and we may well enough suppose the party to be very numerous. Some, no doubt, joined them from mistaken principles, and an apprehension that it was a scheme beneficial to the public, and some for party sake, and popular applause.

"Three of the representatives of Boston, Mr. Cooke, son to the agent, Mr. Noyes, a gentleman in great esteem with the inhabitants in general, and Mr. Payne were the supporters of the party. Mr. Hutchinson, the other (an attempt to leave him out of the house not succeeding), was sent from the house to the council, where his opposition would be of less consequence. The governor was no favorer of the scheme, but the lieutenant-governor, a gentleman of no great fortune, and whose stipend from the government was trifling, engaged in this cause with great zeal.

"A third party, though very opposite to the private bank, yet were no enemies to bills of credit. They were in favor of a loan of bills from the government to any of the inhabitants who would mortgage their estates as a security for the repayment of the bills, with interest, in a term of years, the interest to be paid annually, and applied to the support of government. This was an easy way of paying public charges, which no doubt they wondered, that in so many ages, the wisdom of other governments had never discovered. The principal men in the council were in favor of it, and it being thought by the first party, the least of two evils, they fell in with the scheme, and after that the country was divided between the public and private bank. The house of representatives was near equally divided, but rather favorers of the private bank, from the great influence of the Boston members in the house, and a great number of persons of the town out of it. The controversy had a universal spread, and divided towns, parishes, and particular families.

"At length after a long struggle, the party for the public bank prevailed in the general court, for a loan of £50,000 in bills of credit, which were put into the hands of trustees, and lent for five years only, to any of the inhabitants, at 5 per cent. interest; one-fifth part of the principal to be paid annually. This lessened the number of the party for the private bank, but it increased the zeal, and raised a strong resentment in those which remained.

391. "In 1720," continues the historian, p. 231, "the trade of the province declined. There was a general cry for want of money, and yet the bills of credit, which were the only money, were daily depreciating. The depreciation was grievous to all creditors, but particularly distressing to the clergy, and other salary men, to widows and orphans, whose estates consisted of money at interest, perhaps just enough to support them, and being reduced to one-half the former value, they found themselves on a sudden in a state of poverty and want. Executors and administrators, and all who were possessed of the effects of others in trust, had a strong temptation to retain them. *The influence a bad currency has upon the morals of the people is greater than is imagined.* Numbers of schemes for private, and public, emissions of bills were proposed as remedies, *the only effectual one, THE UTTER ABOLITION OF THE BILLS was omitted.*"

In this year £50,000 had been issued and distributed to the several towns in proportion to their taxes, the bills to be repaid at a fixed time, and the governor seemed to approve of and encourage this way of issuing bills at his first arrival, but was afterwards convinced of their mischievous effects.

"At the opening of the next session, March 15, 1721, the governor in his speech, recommended measures to prevent the depreciation of the currency, to suppress a trade carried on with the French at Cape Breton, and to punish the authors of factious and seditious papers, to provide a present for the five nations, and to enlarge his salary.

"They refused directly or virtually, every proposal. To the first the house tell him in their answer 'they had passed a Bill for issuing £100,000 more in bills of credit.' This alone had a direct tendency to increase the mischief, but they add that to prevent their depreciation, they had prohibited the buying, selling, and bartering silver at any higher rates than set by act of parliament. This certainly could have no tendency to lessen it. Such an act can no more be executed, than an act to stop the ebbing and flowing of the sea. *It would probably carry away and keep out all silver and gold. The DEPRECIATION of their currency, would, notwithstanding, HAVE BEEN AS VISIBLE BY THE RISE OF EXCHANGE WITH FOREIGN COUNTRIES, and have been as sensibly felt by every creditor among themselves.*

"In 1733, there was a general complaint throughout the four governments of New England, of the unusual scarcity of money. There was as large a sum current in bills of credit as ever, but the bills having depreciated they answered the purposes of money so much less in proportion. The Massachusetts and New Hampshire were clogged with royal instructions. It

was owing to them, that those governments had not issued bills to as great an amount as Rhode Island. Connecticut, though under no restraint, yet consisting of more husbandmen, and fewer traders than the rest, did not so much feel the want of money. The Massachusetts people were dissatisfied that Rhode Island should send their bills among them, and take away their substance, and employ it in trade, and many people wished to see the bills of each government current within the limits of such government only. In the midst of this discontent, Rhode Island passed an act for issuing £100,000 upon loan, for, I think, twenty years, to their own inhabitants, who would immediately have it in their power to add £100,000 to their trading stock from the horses, sheep, lumber, fish, &c., of the Massachusetts inhabitants. The merchants of Boston, therefore, confederated and mutually promised not to receive any bills of the new emission, but to provide a currency, a large number formed themselves into a company, entered into covenants, chose directors, &c., and issued £110,000 redeemable in ten years in silver, at 19s. the ounce, the then current rate, or gold in proportion, a tenth part annually. About the same time the Massachusetts treasury, which had been long shut, was opened, and the debts of two or three years were all paid at one time in bills of credit; to this was added the ordinary emissions of bills from New Hampshire, and Connecticut, and some of the Boston merchants, tempted by an opportunity of selling their English goods, having broke through their engagements, and received the Rhode Island bills, all the rest soon followed the example. All these emissions made a flow of money; *silver rose from 19s. to 27s. the ounce, and exchange with all other countries consequently rose also*, and every creditor was defrauded of about one-third of his just dues. *As soon as silver rose to 27s., the notes issued by the merchants payable at 19s. were hoarded up, and no longer answered the purposes of money.* Although the currency was lessened by taking away the notes, yet what remained never increased in value, silver continuing several years about the same rate, until it took another large jump. Thus very great injustice was caused by this wretched paper currency, and no relief of any sort obtained; for by this sinking in value, though the nominal sum was higher than it had ever been before, yet the currency would produce no more sterling money than it would have done before the late emission were made."

392. The same historian continues, p. 392, *sub anno* 1738, "Towards the end of the year, a great clamor arose against the governor for adhering to his instruction about paper money, and against the three representatives for their pernicious principles upon the subject of paper money, and at the town election for 1739, three others were chosen in their stead, two of them professedly disaffected to the governor and promoters of popular measures, the third, though of great integrity, and for that reason desirous of a fixed currency, yet in his judgment against reducing the paper money, and a favourer of schemes for preventing its depreciation. Many country towns followed the example of Boston, and it appeared that a majority of the House were of the same principles with the town members. After Mr.

Belcher's arrival, the House, as we have observed, had passed a vote for depositing £500 sterling in the Bank of England, to be used as they, or their successors, should think proper. This was concurred in council, and consented to by the governor. This money, it was said, could not be better applied, than in soliciting a relaxation of the governor's instruction against paper money, and Mr. Kilby, one of the Boston representatives, was chosen agent for the House, and a petition was by him presented from the House to his Majesty in Council, but it had no effect.

"A general dread of drawing in all the paper money, without a substitution of any other instrument of trade in the place of it, disposed a great part of the province to favour what was called the land bank, a manufactory scheme, which was begun, or rather revived, in this year, 1739, and produced such great and lasting mischief, that a particular relation of the rise, progress, and overthrow of it may be of use to discourage and prevent any attempts of the like nature in future ages. By a strange conduct in the general court, they had been issuing bills of credit for eight or ten years, annually, for charges of Government, and being willing to each present year, they had put off the redemption of the bills as far as they could, but the governor being restrained by his instruction from going beyond the year 1741, that year was unreasonably loaded with thirty or forty thousand pounds sterling taxes, which, according to the general opinion of the people, it was impossible to levy, not only on account of the large sum, but because all the bills in the province were but just sufficient to pay it, and there was very little silver or gold, which by an act of government was allowed to be paid for taxes, as equivalent to the bills. A scheme was laid before the general court by the author of this history, then one of the representatives of Boston, in which it was proposed to borrow in England upon interest, and to import into the province, a sum in silver equal to all the bills then extant, and therewith to redeem them from possessors, and furnish a currency for the inhabitants, and to repay the silver at distant periods, which would render the burden of taxes tolerable by an equal division on a number of a future years, and would prevent the distress of trade by the loss of the only instrument, the bills of credit, without another provided in its place. But this proposal was rejected. One great frailty of human nature—an inability, or indisposition, to compare a distant, though certain, inconvenience, with a present convenience or delight, is said by some strangers, who come among us from Europe, to be prevalent in Americans, so as to make it one of their distinguishing characteristics. Be that as it may, it is certain that, at this time, a great number of private persons, alleging that the preceding general court, having suffered the province to be brought into distress, from which it was not in the power of their successors to afford relief, the royal instruction being a bar to any future emissions of bills, until all that were then extant should be redeemed, resolved to interpose. Royal instructions were no bar to the proceedings of private persons. The project of a bank in the year 1714 was revived. The projector of that bank now put himself at the head of seven or eight

hundred persons, some few of rank and good estate, but generally of low condition among the plebeians, and of small estate, and many of them perhaps insolvent. This notable company were to give credit to £150,000 lawful money, to be issued in bills, each person being to mortgage a real estate, in proportion to the sums he subscribed and took out, or to give bond with two sureties, but personal security was not to be taken for more than £100 from any one person. Ten directors and a treasurer were to be chosen by the Company. Every subscriber, or partner, was to pay 3 per cent. interest for the sum taken out, and 5 per cent. of the principal, and he that did not pay bills might pay the produce and manufacture of the province at such rates as the directors from time to time should set, and they should commonly pass in lawful money. The pretence was that, by thus furnishing a medium and instrument of trade, not only the inhabitants in general would be better able to procure the province bills of credit for their taxes, but trade, foreign and inland, would revive and flourish. The fate of the project was thought to depend upon the opinion which the general court should form of it. It was necessary, therefore, to have a house of representatives well disposed. Besides the 800 persons, subscribers, the needy part of the province in general favoured the scheme. One of their votes will go as far in popular election as one of the most opulent. The former are most numerous, and it appeared that by far the majority of the representatives for 1740 were subscribers to, or favourers of, the scheme, and they have ever since been distinguished by the name of the land bank house.

"Men of estates and the principal merchants in the province abhorred the project, and refused to receive the bills, but great numbers of shopkeepers, who had lived for a long time before upon the fraud of a depreciating currency, and many small traders, gave credit to the bills. The directors, it was said, by a vote of the company, became traders, and issued just what bills they thought proper, without any fund, or security, for their ever being redeemed. They purchased every sort of commodity, ever so much a drug, for the sake of pushing off their bills, and by one means or other a large sum, perhaps fifty or sixty thousand pounds, was abroad. To lessen the temptation to receive the bills, a company of merchants agreed to issue their notes, or bills, redeemable by silver and gold, at distant periods, much like the scheme in 1733, and attended with no better effect. The governor exerted himself to blast this fraudulent undertaking, the land bank. Not only such civil and military officers, as were directors or partners, but all who received and paid any of the bills, were displaced. The governor negatived the person chosen Speaker of the House, being a director of the bank, and afterwards negatived thirteen of the new elected councillors, who were directors, or partners in, or reputed favorers of, the scheme. But all was insufficient to suppress it. Perhaps the major part in number of the inhabitants of the province openly, or secretly, were well-wishers to it. One of the directors afterwards acknowledged to me, that although he entered into the company with a view to the public interest, yet when he found what power and influence they had in all public concerns, he was convinced that it was

more than belonged to them, more than they could make a good use of, and therefore unwarrantable. Many of the most sensible discreet persons in the province saw a general confusion at hand. The authority of Parliament to control all public and private persons in the colonies was, in that day, questioned by nobody. Application was therefore made to Parliament for an act to suppress the company, which, notwithstanding the opposition made by their agent, was very easily obtained, and therein it was declared that the Act of the 6th of King George the First, chapter 18, did and does, and shall, extend to the colonies and plantations in America. It was said that the Act of George I., when it passed, had no relation to America; but another Act, twenty years after, gave it a force even from the passing it, which it never could have had without. This was said to be an instance of the transcendent power of Parliament. Although the company was dissolved, yet the Act of Parliament gave the possessors of the bills a right of action against every partner or director for the sums expressed, with interest. The company were in a maze. At a general meeting some, it was said, were for running all hazards, although the Act subjected them to a *præmunire*, but the directors had more prudence, and advised them to declare that they considered themselves dissolved, and met only to consult upon some method of redeeming their bills from the possessors, which every man engaged to endeavor, in proportion to his interest, and to pay in to the directors, or some of them, to burn and destroy. Had the company issued their bills at the value expressed in the face of them, they would have had no reason to complain of being obliged to redeem them at the same rate, but as this was not the case in general, and many of the possessors of the bills had acquired them for half their value, as expressed, equity could not be done, and so far as respected the company, perhaps Parliament was not very anxious, the loss they sustained being but a just penalty for their unwarrantable undertaking, if it had been properly applied. Had not the Parliament interposed, the province would have been in the utmost confusion, and the authority of government entirely in the land bank company."

393. The opposition of the governor, Mr. Belcher, to the land bank, aroused a strong animosity against him, which succeeded in displacing him, and a new governor was appointed. Upon his assuming office, he found affairs in some confusion. "But the grand affair to settle was that of the bills of credit. The instruction was expressed not to consent to any act, which should continue the bills beyond the time fixed for their being brought in. If this was complied with, a tax must have been made for the whole sum extant in that year, 1741. This, it was said, would be a burden that the people would never bear. Mr. Shirley (the governor) was sensible that the intent of his instructions was the prevention of a depreciating currency. No matter how large a sum in bills was current, if their value could be secured. If the spirit of the instruction could be preserved, an exact conformity to the letter would not be required; every scheme for fixing the value of the bills had failed. A new project was reported by a committee of the House, and accepted, and afterwards concurred by the council,

and consented to by the governor. This was a scheme to establish an ideal measure in all trade, and dealings, let the instrument be what it would. The Act which passed the court declared that all contracts should be understood payable in silver, at 6s. 8d. the ounce, and gold in proportion. Bills of a new form were issued, 20s. of which expressed in the face of the bill three ounces of silver, and they were to be received accordingly, in all public and private payments, with this saving, that if they should depreciate in their value, an addition should be made to all debts, as much as the depreciation from the time of contract to the time of payment. How to ascertain the depreciation from time to time, was the great difficulty in framing the Act. To leave it to a common jury would never do. There was some doubt whether a house of representatives would be wholly unbiassed. At length it was agreed that the eldest councillor in each county should meet once a year, and ascertain the depreciation. This is said to have been the scheme of Colonel Stoddart of Northampton, a gentleman of good sense and great virtue, who probably saw the defects, but hoped to substitute a lesser evil in the place of a greater.

"This at best must have been a very partial cure. It did not prevent the loss from the depreciation of the bills in those persons' hands, through which they were continually passing. All debts, which were contracted and paid between the periods when the value of the bills were fixed annually, could not be affected by such fixing, and, unless in debts of long standing, which the debtor could not pay without an action at law, demand was not ordinarily made for depreciation, and what rendered it of little effect in all other cases, the councillors appointed to estimate the depreciation never had firmness enough, in any instance, to make the full allowance, but when silver and exchange had rose 20 per cent. or more, an addition was made of 4 or 5 only. The popular cry was against it, and one year, when Nathaniel Hubbard, Esq., the eldest councillor for the county of Bristol, a gentleman of amiable character, and who filled the several posts he sustained with applause, endeavoured to approach nearer to a just allowance than had been made in former years, he felt the resentment of the House, who left him out of the council the next election. In short, the Act neither prevented the depreciation of the bills nor afforded relief in case of it, and was of no other service than to serve as a warning, when an Act passed for the establishing a fixed currency a few years after, to leave nothing to be done by any person, or bodies of men, or even future legislatures, to give the Act its designed effect, but in the Act itself, to make full provision for its execution in every part."

"In 1747," continues the historian, p. 435, "By the expedition to Louisburgh, the preparation for the reduction of Canada, and the several supplies of men for Nova Scotia, the province had issued an immense sum in bills of credit, between two and three millions, according to their denomination in the currency. The greatest part of this sum had been issued when between five and six hundred pounds was equal to about £100 sterling, and perhaps the real consideration the Government received from the inhabitants who gave credit to them was near £400,000 sterling,

and the whole debt of the province did not much exceed £200,000 sterling. Thus the people had paid £200,000, sterling in two or three years, besides a large sum raised by taxes each year, as much as it was supposed the people were able to pay; but to pay by the depreciation of the bills, although infinitely unequal, yet, as they were shifting hands every day, it was almost insensible, a possessor of a large sum for a few days, not perceiving the difference in their value between the time when he received them, and the time when he parted with them. The apprehension of their depreciation tended to increase it, and occasioned a quick circulation for some time, even for English goods, which ordinarily sell for the longest credit, nobody pretended to ask credit. They were constantly, however, dying in somebody's hand, though nobody kept them long by them. Business was brisk, men in trade increased their figures, but were sinking the real value of their stock, and, what is worse, by endeavours to shift the loss attending such a pernicious currency from one to another, fraudulent dispositions and habits are acquired, and the morals of the people depreciate with the currency.

"The Government was soliciting for the reimbursement of the charge in taking and securing of Cape Breton, and by the address, assiduity, and fidelity of William Bollan, Esq., who was one of the agents of the province for that purpose, there was a hopeful prospect that the full sum, £180,000 sterling, would be obtained.

"Some of the ministry thought it sufficient to grant such sum as would redeem the bills issued for the expedition, &c., at their depreciated value, and Mr. Kilby, the other agent, seemed to despair of obtaining more; but Mr. Bollan, who had an intimate knowledge of our public affairs, set the injustice of this proposal in a clear light, and made it evident that the depreciation of the bills was as effectually a charge borne by the people, as if the same proportion of bills had been drawn on by taxes, and refused all proposals of accommodation, insisting upon the full value of the bills when issued. He certainly has great merit for this and other services.

"Mr. Hutchinson, who was then Speaker of the House of Representatives, imagined this to be a most favourable opportunity for abolishing bills of credit, the source of so much iniquity, and for establishing a stable currency of gold and silver for the future. About £2,200,000 would be outstanding in bills in the year 1749. One hundred and eighty thousand pounds sterling, at eleven for one, which was the lowest rate of exchange with London for a year or two before, and perhaps the difference was really twelve for one, would redeem £1,980,000, which would leave but £220,000 outstanding; it was, therefore, proposed that the sum granted by Parliament should be shipped to the province, in Spanish milled dollars, and applied for the redemption of the bills, as far as it would serve for that purpose, and that the remainder of the bills should be drawn in by a tax on the year 1749. This would finish the bills. For the future, silver of sterling alloy, at 6s. 8d. the ounce, if payment should be made in bullion, or otherwise, milled dollars, at 6s. each, should be the lawful money of the province, and no person should receive or

pay, within the province, bills of credit of any of the other governments of New England. This proposal being made to the governor, he approved of it, as founded in justice, and tending to promote the real interest of the province, but he knew the attachment of the people to paper money, and supposed it impracticable. The speaker, however, laid the proposal before the house, where it was received with a smile, and generally thought to be an Utopian project, and rather out of deference to the speaker, than from an apprehension of any effect, the house appointed a committee to consider of it. The committee treated it in the same manner, but reported that the speaker should be desired to bring in a bill for the consideration of the house. When this came to be known abroad, exceptions were taken, and a clamour raised from every quarter. The major part of the people in number, were no sufferers by a depreciating currency, the number of debtors is always more than the number of creditors; and although debts on specialties had allowance made in judgments of court for depreciation of the bills, yet on simple contracts, of which there were ten to one specialty, no allowance was made. Those who were for a fixed currency were divided. Some supposed the bills might be reduced to so small a quantity, as to be fixed and stable, and therefore were for redeeming as many by bills of exchange, as should be thought superfluous; others were for putting an end to the bills, but in a gradual way, otherwise it was said a *fatal shock* would be given to trade. This last was the objection of many men of good sense. Douglass, who had wrote well upon the paper currency, and had been the oracle of the anti-paper party, was among them, and, as his manner was with all who differed from him, discovered as much rancour against the author and promoters of this new project, as he had done against the fraudulent contrivers of paper money emissions.

"The bills, it was said, had sunk gradually in their value from 6s. 10½d. to 60s. the ounce, by this means, creditors had been defrauded, it was but reasonable they should rise gradually, that justice might be done. But the creditors and debtors would not be the same in one instance in a thousand, and where this was not the case the injury was the same to oblige any one to pay more, as to receive less, than was justly due. Others were for exchanging the bills at a lower rate than the then current price of silver. The inhabitants had given credit to the government when silver was at 30s. the ounce, and ought to be paid accordingly. Two of the representatives of Boston urged their being exchanged at 30s., which would have given a most unreasonable profit to the present possessor, who had taken them at 55s. or 60s. To draw over some of this party concessions were made, and the bills were exchanged at 50s. the ounce, instead of 55s., as was at first proposed.

"Some of the directors and principal promoters of the land bank scheme, being at this time members of the general court, unexpectedly joined with the party, who were for finishing paper money; but the opposition was so great, that after many weeks spent in debating and settling the several parts of the bill, and a whole day's debate at last in a committee of the whole house, upon the expediency of passing

the bill, as thus settled, it was rejected, and the report of the committee accepted.

"It seems to be of no consequence to the prerogative, whether the currency of a colony be silver or paper; but the royal instructions, from time to time, for preventing a depreciating currency, caused merely by a gracious regard to the interest of the people, had generally engaged, what was called the country party, in opposition to them, and in favor of paper. It was the case at this time. However, the next morning, two of the members of the house, zealous adherers to this party, and who had been strong opposers of the bill, came early to the house to wait the coming of the speaker, and in the lobby let him know, that although they were not satisfied with several parts of the bill, yet they were alarmed with the danger to the province from the schemes of those persons, who were for a gradual reduction of the bills, and by that means for raising the value of the currency, without any provision for the relief of debtors, and therefore they had changed their minds; and if the bill could be brought forward again they would give their voice for it, and others, who had opposed it, would do the same. The speaker, who had looked upon any further attempt to be to no purpose, acquainted them that he did not think it proper to desire any of the favorers of the bill to move for a reconsideration of it, inasmuch as it had been understood, and agreed in the house, the day before, that if, upon a full debate had, the bill should be rejected, no further motion should be made about it. As soon as the house met, upon a motion by one of these members, seconded by the other, the bill was again brought under consideration, and passed the house, as it afterwards did the council, and had the governor's consent. The provision made by this Act for the exchange of the bills, and for establishing a silver currency, was altogether conditional, and depended upon a grant of Parliament for reimbursement of the charge of the Cape Breton expedition. This being at a distance, and not absolutely certain, the Act had no sudden effect upon the minds of the people, but when the news of the grant arrived, the discontent appeared more visible, and upon the arrival of the money, there were some beginnings of tumults, and the authors and promoters of the measure were threatened. The government passed an Act with a severe penalty against riots, and appeared determined to carry the other Act for exchanging the bills into execution. The apprehension of a shock to trade proved groundless; the bills being dispersed through every part of the province, the silver took place instead of them, a good currency was insensibly substituted in the room of a bad one, and every branch of business was carried on to greater advantage than before. The other governments, especially Connecticut and Rhode Island, who refused, upon being invited, to conform their currency to the Massachusetts, felt a shock in their trade, which they have not yet recovered. The latter had been the importers for the Massachusetts, of West India goods, for many years, which ceased at once. New Hampshire, after some years, revived its business, and increased their trade in English goods, which formerly they had been supplied with from the Massachusetts."

394. Thus we see exemplified in this colony.

exactly the same phenomena as we have already observed in England and Ireland from excessive issues of paper. Moreover, we see that when a paper currency, which was greatly depreciated, was in circulation, and another was issued, a great deal more depreciated, the paper currency which was the less depreciated immediately disappeared from circulation. The following figures, shewing the exchange with London and the price of silver, in Massachusetts, will illustrate their rise in consequence of paper issues :—

	Exchange with London.	Silver per ounce.		Exchange with London.	Silver per ounce.
1702 . .	133 .	6 10 $\frac{1}{2}$	1728 . .	840 .	18 0
1705 . .	135 .	7 0	1730 . .	880 .	20 0
1718 . .	150 .	8 0	1737 . .	500 .	26 0
1715 . .	175 .	9 8	1741 . .	550 .	28 0
1717 . .	225 .	12 0	1749 . .	1100 .	60 0
1722 . .	270 .	14 0			

395. We have not such full and minute records of the issues of paper currency in the other colonies as in Massachusetts, and the story must be pretty much the same in all. We shall, therefore, be very brief in regard to the other states. In 1702, the colonies were called upon to join in the war between England and Spain, and South Carolina fitted out an expedition against the Spanish settlement of St. Augustine, which left her with a debt of £6,000 sterling. The legislature passed an Act to stamp bills of credit. For five or six years these were not depreciated. But they were afterwards issued in such profusion, that they became more depreciated than in almost any other colony except Massachusetts.

396. In 1703 Barbadoes adopted the scheme of Mr. Woodbridge, of New England, for creating an issue of paper money, and emitted £80,000 at 4 per cent., the usual rate of interest being 10 per cent. The bills fell to 40 per cent. discount soon after they were issued, and threw everything into confusion in the island. A few years afterwards, orders were sent out from the court of England to the Governor, Mr. Crow, to remove from the Council, and all places of trust, all who had been concerned in the issue of paper.

397. In 1709, an expedition against Canada was planned, and New York issued £13,000 in bills, to fit it out. The bills were valued at 8s. the ounce in silver, and bore interest. This State was one of the most moderate in its issues, and the exchange with London never exceeded 190. In the same year New Jersey issued £3,000 in bills, to be cancelled the same year, and in 1711 it issued £5,000, to be cancelled in 1712 and 1713. In 1750, the West Jersey currency was equal to that of Pennsylvania, and the East Jersey currency to that of New York.

398. In 1710, Rhode Island was ordered to contribute to the Canada expedition. She then commenced the issue of paper money, or as the inveterate enemy of paper money, Dr. Douglass, says, "She has found that the most beneficial business has been *banking*, or negotiating a base, fraudulent paper money currency." From 1710 to 1747, this State issued at various times, on the whole £312,000, which was redeemed at different times. In 1748, Parliament voted money to the colonies to defray the expenses they had been put to, and Rhode Island applied the money to redeem the paper currency, and in that year paid off £88,725. In 1750, it had not more than

£708 sterling outstanding. But it had issued in addition another species of paper, to the amount of £390,000, in loans on land and other securities. There had been no increase in these since 1747, and they were being gradually reduced. The exchange in 1750 stood at 200.

399. In 1712, North Carolina engaged in war with the Tuscarorae, an Indian tribe settled within its limits, and issued bills to the amount of £8,000. In the same year South Carolina issued "a Bank" of £48,000. Exchange rose in the first year to 150; in the second to 200; in 1731 it stood at 700, and continued, with very little variation, at that rate for more than forty years.

400. In 1723, Pennsylvania made its first issue of paper money. In March it issued £15,000 of bills upon land, or plate, deposited with the loan office; it charged 5 per cent., and made the bills legal tender, on pain of forfeiting the debt, or the commodity. Heavy penalties were enacted against making a difference between paper and money. It was also enacted that one-eighth of the principal, as well as the interest, should be annually paid. The same year a fresh issue of £30,000 was made. The usual consequence followed. Specie had once been abundant in the colony, but it soon disappeared; and loud complaints were made that as all their money was paper, they had very little gold and silver, and when any came in, it was accounted as merchandise. Adam Smith says of this Pennsylvania paper, "The government of Pennsylvania indeed pretended, upon their first emission of paper money in 1722, (1723) to render their paper of equal value with gold and silver, by enacting penalties against all those who made any difference in the price of their goods when they sold them for a colony paper, and when they sold them for gold and silver; a regulation equally tyrannical, but much less effectual than that which it was meant to support. A positive law may render a shilling a legal tender for a guinea, because it may direct the courts of justice to discharge the debtor who has made that tender. But no positive law can oblige a person who sells goods, and who is at liberty to sell or not to sell, as he pleases, to accept of a shilling as equivalent to a guinea in the price of them. Notwithstanding any regulation of this kind, it appeared by the course of exchange with Great Britain, that £100 sterling was occasionally considered an equivalent in some of the colonies to £130, and in others to so great a sum as £1,100 currency; this difference in the value arising from the difference in the quantity of paper emitted in the different colonies, and in the distance and probability of the term of its final discharge and redemption. * * *

"Pennsylvania was always more moderate in its emission of paper money than any other of our colonies. Its paper currency, accordingly, is said never to have sunk below the value of the gold and silver, which was current in the colony before the first emission of its paper money. Before that emission the colony had raised the denomination of its coin, and had, by act of Assembly, ordered 5s. sterling to pass in the colony for 6s. 3d., and afterwards for 6s. 8d. A pound colony currency, therefore, even when that currency was gold and silver, was more than 30 per cent. below the value of a pound sterling, and when that currency was

turned into paper, it was seldom more than 30 per cent. below that value. The pretence for raising the denomination of the coin, was to prevent the exportation of gold and silver, by making equal quantities of those metals pass for greater sums in the colony than they did in the mother country. It was found, however, that the price of all goods from the mother country rose exactly in proportion as they raised the denomination of their coin, so that their gold and silver were exported as fast as ever."

401. In this passage, Adam Smith has much underrated the depreciation of the provincial paper in general. So far from Pennsylvania maintaining her paper of equal value with gold and silver, we find that from 1723 to 1726 the price of gold was £6 6s. 6d., and silver 8s. 3d. the ounce; and from 1730 to 1738, gold was £6 9s. 3d., and silver 8s. 9d. the ounce, and the exchange with Great Britain in 1748 was 180, as may be seen in the subsequent table.

402. In 1734 Maryland began to issue paper money, which it did to the amount of £90,000. In 1740, 8s. of Pennsylvania currency was equal to 12s. of Maryland; and in 1748, £200 Maryland was equal to £100 sterling. Virginia was the only colony which abstained from paper issues till the War of Independence.

403. The following figures shew the state of the various colonial currencies compared to £100 sterling:—

	1740	1748
New England	525	1100
New York	160	190
New Jersey	160	180
Pennsylvania	170	180
Maryland	200	200
North Carolina	1400	1000
South Carolina	800	750
Rhode Island	200	200
Virginia		120

This table shews that the depreciation was very much more extensive than Adam Smith supposed, and that he was quite wrong in supposing that the Pennsylvania paper did not fall below specie.

404. At length the intolerable state of these colonial currencies, being a perfect nuisance to trade, was brought before Parliament, and an Act, Statute 1751, c. 53, was passed to regulate and restrain paper bills of credit in Rhode Island, Providence, Connecticut, Massachusetts Bay, and New Hampshire. By this Act, after stating that the Statute of Anne for ascertaining the rate of foreign coins in the American plantations had been frustrated in the above colonies, by the Assemblies issuing great quantities of bills of credit, and making them legal tender, it enacted that after the 29th September, 1751, no governor of these provinces was to give his assent to any bill creating such paper currency, on any pretence whatever, or to prolong the period of calling in the existing bills, which were all to be called in strictly according to their tenor. But the Assemblies might create bills for the current service of the year, provided funds were prepared to redeem them in two years; or in the case of extraordinary emergencies of government, such as war, or invasion, but in such a case ample provision must be made to redeem them within five years. And after the same day, no paper currency of any sort or description was to be made legal tender.

405. Twelve years later, this Act was made

general, and applied to all the American colonies. By the Act, Statute 1763, c. 34, reciting that great quantities of bills of credit had been made, and issued, and declared legal tender, by Acts of the different Assemblies, and that they had greatly depreciated in value, by which means debts had been paid with a much less value than had been contracted for, it enacted that after the 1st September, 1764, any Act creating bills of credit, and paper money of all sorts, legal tender, should be void, as well as any Act made to prolong the legal tender of existing bills beyond the period for calling them in. If the governor of any province gave his assent to any Act for the above purposes, he should forfeit £1,000, be immediately dismissed from his office, and for ever be incapable of being employed.

406. This measure was vehemently opposed by Franklin, who, in 1764, drew up a paper in answer to the reasons assigned in a Report from the Board of Trade for its adoption. This paper contains a most curious mixture of truth and error (*Memoirs, Edition London, 1833, Vol. V. p. 356*), for he is still infected with the error that the balance of trade was the cause of the disappearance of gold and silver. He strenuously defends the use of paper money in the states, while acknowledging its excessive issues on some occasions. He says, "Pennsylvania, before it made any paper money, was totally stript of its gold and silver, though they had from time to time, agreed to take gold and silver coins at higher and higher nominal values, in hopes of drawing money into and retaining it for the internal uses of the province. During that weak practice silver got up by degrees to 8s. 9d. per ounce, and English crowns were called 6, 7, and 8 shilling-pieces long before paper money was made. But this practice of increasing the denomination was found not to answer the end. The balance of trade carried out the gold and silver as fast as it was brought in, the merchants raising the price of their goods in proportion to the increased denomination of the money. The difficulties for want of cash were accordingly very great, the chief part of the trade being carried on by the extremely inconvenient method of barter; when in 1723, paper money was first made there, which gave new life to business, promoted greatly the settlement of new lands (by lending small sums to beginners on easy interest to be repaid by instalments,) whereby the province has so greatly increased in inhabitants, that the export from hence thither, is now more than tenfold what it then was, and by their trade with foreign colonies they have been able to obtain great quantities of gold and silver to remit hither, in return for the manufactures of this country. New York and New Jersey have also increased greatly during the same period, with the use of paper money; so that it does not appear to be of the ruinous nature ascribed to it. And if the inhabitants of those countries are glad to have the use of paper among themselves, that they may thereby be enabled to spare for remittances hither, the gold and silver they obtain by their commerce with foreigners, one would expect that no objection against their parting with it could arise here, in the country that receives it."

407. Franklin admits, that in particular instances, at particular times and places, during times of war and danger, and in some cases, as in

New England, from excessive issues, the merchants trading to these colonies might sometimes have suffered by a sudden and unforeseen rise of exchange. But he says that the merchants trading to the middle colonies, (New York, New Jersey, and Pennsylvania) had never suffered by any rise of exchange, as it was a constant rule there to consider British debts as payable in Britain, and only to be discharged by as much paper as would purchase a bill for the full sterling sum, whatever the rate of exchange might be. The use of paper money had been beneficial, both to the merchants and the colonists, who were so sensible of its benefits, that they had petitions to have it allowed.

408. It was alleged in the report of the Board of Trade, that every medium of trade should have an *intrinsic value*, which paper money has not. Gold and silver are, therefore, the fittest for this medium, as they are an equivalent, which paper can never be." In replying to this, Franklin has some true remarks. He urges the hardship of putting down paper in the colonies, when the greater part of business in London was carried on with bank bills, and bankers' notes, which had no *intrinsic value*, but rested on the credit of those that issued them, as paper bills in the colonies did on the credit of the respective governments there. He defends their being made legal tender, and redeemable after a certain time. "At this very time," he says, "even the silver money in England is obliged to be the legal tender for part of its value, that part which is the difference between its real weight and its denomination. Great part of the shillings and sixpences now current, are by wearing become 5, 10, 20, and some of the sixpences even 50 per cent. too light. For this difference between the *real* and the *nominal*, you have no *intrinsic value*; you have not so much as paper, you have nothing. It is the legal tender, with the knowledge that it can easily be repassed for the same value, that makes three-penny worth of silver pass for sixpence. Gold and silver have undoubtedly some properties, that give them a fitness above paper, as a medium of exchange, particularly their *universal estimation*, especially in cases where a country has occasion to carry its money abroad, either as a stock to trade with, or to purchase allies and foreign succours. Otherwise, that very universal estimation is an inconvenience, which paper money is free from, since it tends to deprive a country of even the quantity of currency that should be retained as a necessary instrument of its internal commerce, and obliges it to be continually on its guard, in making and executing at a great expense the laws that are to prevent the trade which exports it. Paper money, well funded, has another great advantage over gold and silver, its lightness of carriage, and the little room that is occupied by a great sum, whereby it is capable of being more easily, and more safely, because more privately, conveyed from place to place. Gold and silver are not *intrinsically* of equal value with iron, a metal in itself capable of many more beneficial uses to mankind. *Their value rests chiefly in the estimation they happen to be in among the generality of nations, and the credit given to the opinion that that estimation will continue, otherwise a pound of gold would not be a real equivalent*

for even a bushel of wheat. ANY OTHER WELL FOUNDED CREDIT IS AS MUCH AN EQUIVALENT AS GOLD AND SILVER, and in some cases more so, or it would not be preferred by commercial people in different countries. Not to mention again our own bank bills, Holland, which understands the value of cash, as well as any people in the world, would never part with gold and silver for credit, (as they do when they put it into their bank, from whence little of it is ever after drawn out) if they did not think and find the credit a full EQUIVALENT." From this extract it appears that Franklin saw clearly, what we have shewn elsewhere, (CURRENCY; BANK NOTE) that money is only universal credit, and that it is its *exchangeability* that gives it value, and not the *cost of its production*, or the *labor of producing it*. But he has not shaken himself free of the confusion between use and value.

409. The last reason alleged for suppressing the paper was that, even in the middle colonies, where the issues were least, the paper was constantly depreciated. To this Franklin says, "If the rising of the value of any particular commodity wanted for exportation is to be considered as a depreciation of the values of whatever remain in the country, then the rising of silver above paper to that height of additional value, which its capability of exportation only gave it, may be called a depreciation of the paper. Even here (i. e. London) as bullion has been wanted, or not wanted, for exportation, its price has varied from 5s. 2d. to 5s. 8d. per ounce. This is near 10 per cent. But was it ever said or thought on such an occasion, that all the bank bills, all the coined silver, and all the gold in the kingdom were depreciated 10 per cent.?" Now the author himself had very clearly furnished an answer to his own question, because he had already told us a few paragraphs before, that the currency of the country was then in a very degraded state, and it is quite clear that it would only pass for its weight in bullion in foreign countries. Consequently it is quite clear that it *was* depreciated. To which must be added that it was then illegal to export coin, and consequently that would still more depreciate its value, as compared to bullion. Franklin however states that the rate of the paper had not varied for forty years, and was the same when the issue was £15,000 as when it was £600,000. And he anticipates the arguments of the anti-bullionists in 1804 and 1811. "It has indeed been usual with the adversaries of a paper currency to call every rise of exchange with London, a depreciation of this paper; but this notion appears to be by no means just. For if the paper purchases everything but bills of exchange at the former rate, and these bills are not above one-tenth of what is employed in purchases, then it may be more properly and truly said, that the exchange has risen, than that the paper has depreciated." He then discusses some plans that had been proposed for making a paper currency, but which should not be legal tender, but pronounces them all to have been failures, and concludes that, "on the whole, no method has hitherto been formed to establish a medium of trade in lieu of money, equal in all its advantages to bills of credit—funded on sufficient taxes for discharging it, or on land security of double the value, for repaying it at the end of the term, and

in the meantime, made a general legal tender. The experience of now near half a century in the middle colonies, has convinced them of it among themselves, by the great increase of their settlements, numbers, buildings, improvements, agriculture, shipping, and commerce." Adam Smith entirely approved of the Act suppressing these colonial issues of paper money. Ten years afterwards, by the Act, Statute, 1773, c. 57, it was enacted, that after the 1st of September that year, any certificates, notes, bills, or debentures, which had been voluntarily accepted by the creditors of the public, as a security for payment of their debts, might be declared legal tender, in payment of taxes, duties, or any debts due to the public treasuries of the respective colonies. This closes the first era of American paper money.

410. On the 5th September, 1774, delegates from the different provinces in North America met in Philadelphia, as the first Congress. The War of Independence commenced soon afterwards, and in the next year, Congress found that it had no resources to carry it on with, as it had no power to impose taxes. In July, 1775, it was determined to issue bills of credit on the faith of the *Continental*. Benjamin Franklin was a strenuous adviser of this plan, as the only one that could carry the country through the contest. On the 25th July, 1775, 300,000 million dollars in paper were issued, which were to be redeemed in gold and silver in three years, and they were proportioned among the twelve States, which at that time sent delegates to Congress. That body could only recommend the several States to impose taxes to redeem these bills. The national enthusiasm, for a considerable time, supported the value of these bills, and in January, 1776, a resolution of Congress denounced those who obstructed their circulation, as enemies to their country. No depreciation was apparent until the issues reached 9,000,000 dollars, and no difference between specie and paper began to be seen until the campaign of 1776 was far advanced. But it was quite evident to every reflecting person, that this could not go on indefinitely. Congress could not regulate the amount of bills in circulation, as every local legislature claimed and exercised the right of issuing them as well. To impose taxes was the only way to reduce the number, but this Congress could not do, and the local legislatures were afraid to do so, for fear of exciting discontent, and damping the ardour of the people for the war. Lotteries and loans were tried with little success, as the constant necessity for issuing new bills, completely outdid the small benefit of calling in the paper by these trifling means. During 1776 upwards of twenty million dollars were issued, and in the beginning of 1777 the depreciation began to be sensibly perceived. It was, as usual, mistaken by many as a rise in the price of every article brought to market, and the usual futile attempt was made to sustain its value by violent remedies. Congress resolved that whoever made a difference between gold and silver and continental bills should be deemed as enemies to the liberties of the United States, and forfeit the value of the money, or other thing purchased. The provincial legislatures were also invited to pass laws declaring these bills legal tender, and

resolutions pledging themselves to redeem their respective quotas of paper at the end of the war, which was done, and merchants were ordered to pay all debts due by them to British creditors into the state treasury, which was declared to be a complete discharge to them from their creditors.

411. The course pursued by Congress on this occasion, was very similar to that followed twenty years later by the National Assembly of France, and partially by our Parliament in 1812, and we shall quote from an American author, Mr. Palatiah Webster, an account of it. "The fatal error that the credit and currency of continental money could be kept up, and supported by acts of compulsion, entered so deep into the minds of Congress, and all departments of administration through the States, that no consideration of justice, religion, or policy, or even experience of its utter inefficiency could eradicate it; it seemed to be a kind of obstinate delirium, totally deaf to every argument drawn from justice and right, from its natural tendency and mischief, from common justice and even from common sense.

"Congress began as early as January 11, 1776, to hold up and recommend this *maxim of mania*, when continental money was but five months' old. Congress then resolved that whoever should refuse to receive in payment continental bills, should be declared and treated as an enemy of his country, and be precluded from intercourse with its inhabitants, i. e., should be *outlawed*, which is the severest penalty (except of life and limb) known to our laws.

"This ruinous principle was continued in practice for five successive years, and appeared in all shapes and forms, i. e., in *tender acts*, in *limitation of prices*, in *awful and threatening declarations*, in *penal laws*, with dreadful and ruinous punishments, and in every other way that could be divined, and all executed with a relentless severity by the highest authorities then in being, viz., by Congress, by Assemblies, and conventions of the States, and by committees of inspection (whose power in those days were nearly sovereign), and even by military force; and though men of all descriptions stood trembling before this monster of force, without daring to lift a hand against it during all this period, yet its unrestrained energy always proved ineffectual to its purposes, but in every case increased the evils it was designed to remedy, and destroyed the benefits it was intended to promote; at best, its utmost effect was like that of water sprinkled on a blacksmith's forge, which, indeed, deadens the flame for a moment, but never fails to increase the heat and flame of the internal fire. Many *thousand families*, of full and easy fortune, were ruined by these fatal measures, and lie in ruins to this day (1790). without the least benefit to the country, or to the great and noble cause in which we were then engaged."

412. Mr. Webster describes the injuries inflicted on the country by the enemy, who had possession first to last of eleven of the capitals of the thirteen states, and ravaged the country in all directions, burning in cool blood a great number not only of houses, barns, mills, &c., but also of most capital towns, and villages. He also describes the immense losses caused to the inhabitants by seizing all their property, that was wanted for the public service. And yet he says that all these

injuries and losses were not so great as those caused by the continental money. "We have suffered more from this cause, than from *every other* cause of calamity; it has killed more men, pervaded and corrupted the choicest interests of our country more, and done more injustice than even the arms and artifices of our enemies."

413. At last in May, 1781, certain compulsory measures of the Executive Council of Pennsylvania, for the purpose of supporting the credit of the continental money, and the state bills, destroyed the system. "Thus," says Mr. Webster, "fell, ended, and died, the continental currency, aged six years. Bubbles of another sort, such as the Mississippi scheme in France, and the South Sea in England, lasted but a few months, and then burst into nothing; but this held out much longer, and seemed to retain a vigorous constitution to the last; for its circulation was never more brisk than when its exchange was 500 to 1; and yet it expired without a groan or struggle; and I believe of all things which ever suffered dissolution since life was first given to the creation, this mighty monster died the least lamented. If it saved the State, it has also polluted the equity of our laws, turned them into engines of oppression and wrong; corrupted the justice of our public administration; destroyed the fortunes of thousands of those who had the most confidence in it; enervated the trade, husbandry, and manufactures of our country; and gone far to destroy the morality of our people."

414. On the 31st of May, 1781, these continental bills ceased to circulate as money, but they were afterwards bought up on speculation from 400 up to 1,000 to 1. The exchange was very different in different parts of the country. It generally followed Philadelphia, though, sometimes, was considerably behind it; thus, in January, 1781, while it was 100 for 1 at Philadelphia, it was 75 for 1 in Virginia; and in April, when it was 135 for 1 at Philadelphia, it was 100 for 1 in Virginia. In May, 1781, when it was 225 for 1 at Philadelphia, it was 75 for 1 at Boston.

415. The quantities of it issued and the depreciation it underwent, are exhibited in the following figures:—

In 1775, issued in dollars . . .	3,000,000
1776	20,064,464
1777	26,426,833
1778	66,963,269
1779	149,708,856
1780	88,799,556
1781	12,587,344
	<hr/>
	\$362,546,822

The following table shews the rates of exchange for money at Philadelphia. Up to the end of 1776 there was no sensible depreciation:—

	1777	1778	1779	1780	1781
January . . .	14	4	7, 8, 9	40-45	100
February . . .	14	5	10	45-55	100-120
March . . .	2	5	10, 11	60-65	120-135
April . . .	24	6	12-22	60	135-200
May . . .	24	5	22-24	60	200-500
June . . .	24	4	22-18	60	
July . . .	8	4	18-20	60-65	
August . . .	8	5	20	65-75	
September . .	8	5	20-28	75	
October . . .	8	5	30	75-80	
November . .	8	6	32-45	80-100	
December . .	4	6	45-88	100	

416. In May, 1781, Congress determined to issue no more continental money, but to leave each State to raise, pay, and equip its quota of troops. A great reform in the administration also took place, for, up to this time, each department was under the management of a Committee of Congress, or a Board, the consequences of which need not be described. It was now determined to put each department under the control of a single responsible head. And amongst others, Mr. Morris, delegate from Pennsylvania, who had been very active in establishing a bank at Philadelphia, was appointed superintendent of finances, which he re-organized, in a very able manner, in 1781. This gentleman laid before Congress, on the 26th May, 1781, a plan for a National Bank, with a capital of 400,000 dollars, to be paid up by subscription, and to be incorporated by the Government, and to have its books open to the superintendent of finance. Their notes were to be receivable as specie from the respective States, into the treasury of the United States. This plan was approved of by Congress, and the Charter of Incorporation was granted on the 31st December, 1781. Thus terminated the second era of American paper money.

417. The constantly depreciating value of the continental money, the impotence of Congress to lay on taxes, and the failure of the loan and lottery schemes, convinced Washington that there was only one way of extricating the country from its financial embarrassment, and that was to raise a loan in Europe. With this view he despatched a Colonel Laurens to France in 1781, charged with the duty of negotiating a loan from the French ministry. In this he partially succeeded. Large loans were negotiated in 1782 and 1783. The cessation of the war expenditure took away the necessity for further issues, and such a conviction of the necessity of public supplies generally took place through the States, that considerable sums were raised by a tax on polls and real estates.

418. The Bank was incorporated under the name of the "President, Directors, and Company of the Bank of North America," and commenced business in January, 1782. There were not more than 70,000 dollars subscribed in specie before October, 1781; but a French frigate having brought 470,000 dollars, Mr. Morris subscribed the remainder of the necessary capital on behalf of the government of the United States, which thus became the principal stockholder in it. As the mischiefs of the continental money were still fresh in the mind of the people, there was much difficulty, at first, in obtaining currency for its notes. But as it made a profuse display of its cash, it gradually increased in credit. The bank not only got the Act of Congress to establish it, but obtained a charter as well from the State of Pennsylvania, in which it is situated, in April, 1782. The business soon became extremely profitable, and this naturally created a desire in others to participate in these profits. A project for a second bank was formed, to be called the Bank of Pennsylvania. In order to prevent this, the bank was obliged, much against its will, to enlarge its capital, and receive a new body of subscribers. The bank prospered during 1784 and 1785. But in the spring of that year a very formidable opposition was organized against it, and

petitions were presented in March to the Assembly for a repeal of the charter. A committee of the House reported in favor of the allegations of the petitioners, and on the 13th of the following September the charter was repealed. The bank, however, claimed the right to continue business under the Act of Congress. In the following year its friends tried to obtain a re-grant of its charter, but did not succeed. On the 17th March, 1787, it was re-incorporated for 14 years; and by successive Acts it still exists.

419. The intolerable evils of the provincial paper money before the War of Independence, and of the continental paper money during the war, were so clear and indisputable, that the framers of the Constitution of the United States sagaciously seized the opportunity to provide once for all against the possibility of their recurrence. By Article I., Section 10, of the Constitution of the United States, it is declared, that no State shall COIN MONEY; EMIT BILLS OF CREDIT; OR MAKE ANYTHING BUT GOLD AND SILVER COIN A TENDER IN PAYMENT OF DEBTS.

420. The feeble powers of Congress after the achievement of independence, for several years prevented them from having the means to meet the public engagements. But no sooner was the Constitution reformed in 1787, and brought into efficient working order, than the government, at the head of which Washington was now placed, directed its attention to restore public credit, and fulfil the national engagements. In August, 1790, Mr. Hamilton, the secretary to the Treasury, was directed to prepare a Report on Public Credit, which was presented to Congress in December, 1790. It appears by this document that at that time the debt of the United States amounted to \$1,854,464 dollars, divided into a foreign debt of 10,070,307, bearing an interest partly of 4, and partly of 5, per cent., with arrears of interest amounting to 1,640,072 dollars; and a domestic debt of 27,383,918 dollars, bearing an interest of 6 per cent., with arrears amounting to 13,030,168 dollars. But these debts were apportioned out to the different States. The secretary proposed various plans of funding and liquidating this debt, and in this, he brings forward an idea which has been very commonly entertained by many eminent persons even in this country, and which is one of the subtleties of Political Economy, i.e., that the public funds are money, or currency. In recommending that the debt be funded, he says, (*Gales and Seaton's Congressional Debates*, Vol. II., p. 2044.) "But there is a consequence of this less obvious, though not less true, in which every other citizen is interested. It is a well known fact, that in countries where the national debt is properly funded, and an object of undoubted confidence, it answers most of the purposes of money. Transfers of stock, or public debt, are then equivalent to payments in specie, or, in other words, stock, in the principal transactions of business, passes current as specie. The same thing would in all probability happen here under the like circumstances. The benefits of this are various and obvious. First, trade is extended by it, because there is a larger capital to carry it on, and the merchant can, at the same time, afford to trade for smaller profits, as his stock which when unemployed, brings him in an interest from the Government, serves him also as

money, when he has a call for it in his commercial operations. Secondly, agriculture and manufactures are also promoted by it, for the like reason, the more capital can be commanded to be employed in both; and because the merchant, when enterprise in foreign trade gives to them certainty and extension, has greater means for enterprise. Thirdly, the interest of money will be lowered by it; *for this is always in a ratio to the quantity of money, and to the quickness of circulation.* This circumstance will enable both the public and individuals to borrow on easier and cheaper terms. And from the combination of these effects, additional aid will be furnished to labor, to industry, and to arts of every kind. But these good effects of a public debt are only to be looked for when, by being well funded, it has acquired an adequate and stable value. Till then it has rather a contrary tendency. The fluctuation and insecurity incident to it in an unfunded state, render it a mere commodity and a precarious one. As such, being only an object of occasional and particular speculation, all the money applied to it is so much diverted from the more useful channels of circulation, for which the thing itself affords no substitute; so that, in fact, one serious inconvenience of an unfunded debt is, that it contributes to the scarcity of money. This distinction, which has been little, if at all, attended to, is of the greatest moment. It involves a question immediately interesting to every part of the community, which is no other than this, whether the public debt, by a provision for it on true principles, shall be rendered a substitute for money, or whether by being left as it is, or being provided for in such a manner as will wound these principles, and destroy confidence, it shall be suffered to continue, as it is a pernicious drain of our cash from the channels of productive industry." In this extract we have two of the most subtle principles of Political Economy mooted, 1st:—He says, that the public funds are money, or currency. 2ndly:—That the interest of money is always in proportion to the quantity of it, both of which are fundamental errors of great importance, and which are fully investigated under their respective heads. (CURRENCY. INTEREST.)

421. Concurrently with the report on public credit, the secretary presented an elaborate report on the expediency of establishing a National Bank, in which its advantages are set forth, and its alleged disadvantages examined and answered, which well deserves an attentive reading. Mr. Hamilton was perfectly well aware of what, by recent economists in England, has been strenuously denied, *that banks increase capital*, and he shews that knowledge of its mechanism, the want of which is so conspicuous in English writers, which we have already had to notice in the former part of this article. Mr. Hamilton, says, (*Gales and Seaton*, Vol. II., p. 2083). "The following are among the principal advantages of a bank. First, the AUGMENTATION of the active or productive capital of a country. * * * It is a well established fact, that banks in good credit can circulate a far greater sum than the actual quantum of their capital in gold and silver. The extent of the possible excess seems indeterminate, though it has been conjecturally stated at the proportions

of two and three to one. This faculty is produced in various ways:—1st. A great portion of the notes which are issued, and pass current as cash, are indefinitely suspended in circulation, from the confidence which each holder has that he can at any moment turn them into gold and silver. 2ndly. *Every loan which a bank makes is, in its first shape, a CREDIT GIVEN to the borrower on its books*, the amount of which it stands ready to pay, either in its own notes, or gold, or silver, at his option. But, in a great number of cases, no actual payment is made in either. The borrower frequently, by a cheque, or order, transfers his credit to some other person, to whom he has a payment to make; who, in his turn, is as often content with a similar credit, because he is satisfied that he can, whenever he pleases, either convert it into cash, or pass it to some other hand, as an equivalent for it. *And in this manner the credit keeps circulating, performing, in every stage, the office of money*, till it is extinguished by a discount with some person, who has a payment to make to the bank to an equal or greater amount. Thus large sums are lent and paid, frequently through a variety of hands, without the intervention of a single piece of coin. 3rdly. There is always a large quantity of gold and silver in the repositories of the bank, besides its own stock, which is placed there, with a view partly to its safe keeping, and partly to the accommodation of an institution, which is itself a source of general accommodation. These deposits are of immense consequence in the operation of a bank. Though liable to be re-drawn at any moment, experience proves that the money so much oftener changes proprietors than place, and that what is drawn out is generally so speedily replaced, as to authorize the counting upon the sums deposited as an effective fund, which, concurring with the stock of the bank, enables it to extend its loans, and to answer all the demands for coin, whether in consequence of those loans, or arising from the occasional return of its notes. These different circumstances explain the manner in which the ability of a bank to circulate a greater sum than its actual capital in coin is acquired. * * *

The same circumstances illustrate the truth of the position, *that it is one of the properties of banks to increase the active capital of a country*. This, in other words, is the sum of them; the money of an individual, while he is waiting for an opportunity to employ it, by being either deposited in the bank for safe keeping, or invested in its stock, is in a condition to administer to the wants of others, when he could not himself make use of it, and keeps the money itself in a state of incessant activity. In the almost infinite vicissitudes and competition of mercantile enterprise, there never can be a danger of an intermission of demand, or that the money will remain for a moment idle in the vaults of the bank. *This additional employment given to money, and the faculty of a bank to lend and circulate, a greater sum than the amount in coin, ARE TO ALL THE PURPOSES OF TRADE AND INDUSTRY, AN ABSOLUTE INCREASE OF CAPITAL*. Purchases and undertakings in general, can be carried on by any given sum of bank paper, or credit, as effectually as by an equal sum of gold and silver. And thus, by contributing to enlarge the mass of industrious

and commercial enterprise, banks become nurseries of national wealth—a consequence as satisfactorily verified by experience, as it is clearly deducible in theory.”

422. This extract is an effectual refutation of the current opinion in English books that a bank only gives a greater activity to *existing* capital, and the common opinion that a banker only *lends* out what he receives. It is perfectly plain that Mr. Hamilton knew well that a banker trades by *creating credit*, which performs the function of money. That a banker makes a loan, in the first instance, by creating a credit, and not as Sir Robert Peel said, by making a *bonâ fide* advance of capital.

423. The report then explains the reasons why it was inexpedient to graft a new National Bank on the Bank of North America, which had, however, done great service to the national cause, during the period of its existence, but which now having accepted a charter from a provincial state, was rather to be considered as a provincial bank of Pennsylvania, than a national one. He accordingly presented a plan of a new National Bank to be incorporated, with a capital not exceeding 10,000,000 dollars, three-fourths of which might be paid up in the stock, or the public debts of the Union.

424. Mr. Hamilton was decidedly against making land the basis of paper currency. “Another wish, dictated by the particular situation of the country, is, that the bank could be so constituted, as to be made an immediate instrument of loans to the proprietors of land; but this wish also yields to the difficulty of accomplishing it. *Land is, alone, an unfit fund for bank circulation*. If the notes issued upon it were not to be payable in coin on demand, or at a short date, *this would amount to nothing more than a repetition of the paper emissions, which are now exploded by the general voice*. If the notes are to be payable in coin, the land must first be converted into it by sale, or mortgage. The difficulty of effecting the latter is the very thing which begets the desire of finding another resource; and the former would not be practicable on a sudden emergency, but with sacrifices which would make the cure worse than the disease. Neither is the idea of constituting the fund partly of coin, and partly of land, free from impediments.”

425. This report was presented to both houses of Congress, and the plan was adopted without discussion by the Senate, and it passed with equal ease through the house of Representatives, until it came to the third reading, when most unexpectedly, the most vehement opposition was made to it, on a point which has been most warmly contested from that day to this, namely, *whether Congress had the power to erect a Corporation*.

426. This objection touched the very foundations of the constitutional powers of Congress. It was argued at great length by Mr. Madison on the 2nd of February, 1791. (*Gales and Seaton, Vol. II., p. 1944.*) but as it is a great constitutional question, we of course cannot enter into it, we can only say that after being debated for a week, with extraordinary keenness, it was at last carried by a majority of 39 to 20, that the bill should pass. The division of opinion on the constitutionality of the question was equally

strong in the cabinet, as in the house of representatives, and the country, but Washington having demanded an elaborate argument from each party, after mature deliberation, formed the opinion that the measure was constitutional, and gave his assent to it.

427. By Acts, Acts of the First Congress of the United States, chapters 84 and 85, February 25, and March 2, 1791, subscriptions were to be opened on the 1st July, 1791, for a bank, to be called the "Bank of the United States," with a capital stock not to exceed 10,000,000 dollars, in shares of 400 dollars, to which any one might subscribe, for not more than 1000 shares, one-fourth of which was to be paid in gold and silver, and the remainder in the public debt of the United States, bearing 6 per cent. interest. The subscribers were to exist as a corporation until the 4th of March, 1811. The total amount of debts which the corporation might at any time owe in any manner, should not exceed 10,000,000 dollars, over and above the moneys actually deposited in the bank for safe keeping, unless the contracting any greater debt should be previously authorized by a law of the United States. In case of excess, the directors, under whose administration it should happen, should be liable in their private capacities, as well as all the lands, tenements, goods and chattels of the corporation. It might sell any part of the public debt, which composed its stock, but it might not buy any; and it was not to deal, or trade, in anything except bills of exchange, or gold and silver bullion, or the sale of goods, pledged with it, and not redeemed in due time, and it might not charge more than 6 per cent. for advances. It was not to lend the government of the United States more than 100,000 dollars, or that of any State in the Union more than 50,000 dollars, without a law for that purpose. The subscription list was filled up in two hours.

428. This bank continued in operation till the term of its charter expired. As that period approached, the warm discussions as to its benefits, and constitutionality, were revived. On the 24th of January, 1811, the House of Representatives, by a majority of sixty-five to sixty-four, resolved to postpone the consideration of re-chartering it indefinitely. A bill, brought into the Senate for the same purpose, was rejected by the casting vote of the Vice-President, on the 20th February, only eleven days before the Charter expired. The bank during this interval applied to have its charter prolonged for a sufficient time to allow it to wind up. But the Committee of the House, to whom the memorial was referred, reported, through their chairman, Henry Clay, "that holding the opinion, (as a majority of the Committee do,) that the constitution did not authorize Congress originally to grant the Charter, it follows, as a necessary consequence of that opinion, that an extension of it, even under the restrictions contemplated by the stockholders, is equally repugnant to the constitution." The bank was, therefore, obliged to wind up, and on the 1st June, 1812, 70 per cent. of the capital stock was repaid to the shareholders, and 18 per cent. more on the 1st October, another 7 per cent. on the 1st April, 1813, another of 5 per cent. in April, 1815, and another of 5 per cent. in December,

1817, and some other payments were made subsequently.

429. At the time of the institution of the Bank of the United States, there were but four banks in the States,—the Bank of North America, erected by an Act of Congress of very doubtful legality, a bank at New York, one at Boston, and one in Maryland. Soon after that they multiplied rapidly. In 1791, one new bank was erected; in 1792, 8; in 1793, 3; in 1795, 5; in 1796, 1; in 1800, 2; in 1801, 3; in 1802, 4; in 1803, 16; in 1804, 10; in 1805, 4; in 1806, 4; in 1807, 9; in 1808, 1; in 1809, 3; in 1810, 8; in 1811, 11; in 1812, 22; the capital of these formed an aggregate of 77,258,000 dollars. In 1814, a project was brought before the Assembly of Pennsylvania, by which forty-one new banks would have been established at once, but the Governor, in well founded alarm, rejected it. But yet they multiplied with astonishing rapidity, for, by 1816, they amounted to 246. The same nuisance was felt from the power of issuing notes without limit as to their amount, as was felt in this country. In 1814, the New England Banks issued notes for 25 cents, whereby it was rendered so difficult in some of the Eastern States to get a dollar changed, that it was necessary to purchase change of the money dealers in towns, for current travelling expenses. And many of the banks, with many hundred thousand of paper dollars in circulation, had little or no specie in their coffers. In one bank, that failed in 1809, no accurate account was kept of the notes in circulation, but when it failed, there were not less than 648,000 in circulation, and their specie was found to be eighty-six dollars. Of two banks in Massachusetts, one was found to have thirty or forty dollars in specie, and the other none; and the whole of them had not as much specie as the paper issued by a single one. The first bank of the United States issued no notes below ten dollars, which, to a certain extent, controlled the issues of the local banks.

430. The Bank of the United States having failed to obtain a renewal of its charter from Congress, tried to get a charter from the State of Pennsylvania, but was refused from the preponderance of local interests, even though they offered a very large bribe. A banking mania began to declare itself in 1810, and the Legislature passed a law prohibiting any unincorporated companies from carrying on any of the operations of banking, but this was generally disregarded, and even companies incorporated for other purposes, issued notes. During the session of 1812-13, a bill to incorporate 25 banks passed both houses of the Legislature, by a majority of one in each house. The governor returned the bill with his objections. But the next session a bill to incorporate 41 banks with capitals amounting to 17 million dollars, passed by a large majority. The governor again returned it with objections, but two-thirds of each house having agreed to it, it became law on the 21st March, 1814, and under this Act 37 banks were actually instituted. The simultaneous operations of these manufactories of paper, produced its natural effect. The paper became depreciated, and caused a heavy pressure on the banks for specie. The Western and Southern Banks had been doing exactly the same, and the consequence was that in August and September,

1814, all the banks in the United States, except those in New England, stopped payment. In November, the paper of the best banks in Philadelphia was at 14 per cent. discount.

431. In October, 1814, during this general suspension, Mr. Dallas, secretary to the Treasury, recommended the establishment of a National Bank, with a capital of 50,000,000 dollars, of which 20 millions should be subscribed by government, and paid in 6 per cent. stock. The remainder to be subscribed by individuals, and of it 18 millions might be in stock. The bank was to be allowed to suspend specie payments, if the President thought it desirable. After many discussions and changes of plan, a bill for a bank passed the Legislature, but was vetoed by President Madison. The banks being freed by popular acquiescence from paying in specie, multiplied rapidly, and extended their operations, so that the notes of the city banks fell 20 per cent., and those of the country ones from 20 to 50 per cent., and specie so entirely disappeared from circulation, that even the fractional parts of a dollar were paid in small notes, and tickets issued by banks, corporations, and individuals. Prices rose correspondingly, and people were for a long time deluded into the belief that this was a real rise in their value. The government in vain tried to curb these issues. But the banks were independent, and rejected all attempts to establish some fixed medium of circulation. They thought that it was their duty to make as much profit as they could for themselves, and every effort and plan devised by the government to give uniformity to the currency failed.

432. The entire failure of all attempts at negotiation with the banks, which appeared to have adopted a suspension of cash payments *en permanence*, made the government once again bring forward the scheme of a National Bank. In his message to Congress on the 5th December, 1815, President Madison called the attention of the Legislature to the intolerable state of the currency, and said that if the State banks could not remedy it, the probable operation of a National Bank would merit consideration. So weak was the government, that it did not venture to condemn the suspension of cash payments, but it said that the continuance of it must be ascribed to a new cause. But now was manifested the wisdom of the founders of the constitution of the States, which declared that no State should make anything but gold and silver legal tender; if it had not been for this fundamental enactment, there can be little doubt that the States would either have gone back to their old paper issues, or the banks, by a permanent refusal to pay specie, would have produced the same effects. The delusion was the prevailing one in England at the same time, where the doctrines of the bullion report were now held in great contempt, by the majority of Parliament and the public. At length, however, returning sense dawned upon the public, and towards the close of 1815, the doctrine so generally taught and believed that it was not the paper currency which was depreciated, but specie which had risen in value, began to be abandoned.

433. In January, 1816, a bill was brought in to establish a Bank of the United States, and after very warm debates, was passed and approved by the President on the 10th of April. By Act

1816, c. 44, the Bank of the United States was established, with a capital of 35,000,000 dollars, in 350,000 shares of 100 dollars each. Seventy thousand shares were to be subscribed for and paid by the government of the United States, the remainder by individuals, amounting to 28,000,000 dollars, of which 7 millions were required to be in gold or silver, and the remaining 21 millions, either in gold or silver, or the funded debt of the States. The secretary to the Treasury might subscribe on behalf of the government for 7 million dollars, either in coin or in the funded debt of the Union. The government might redeem the funded debt subscribed to the capital of the bank, at certain rates, and the bank might sell it on certain conditions. The subscribers were to continue as a corporation till the 3rd March, 1836, and they were enabled to possess and hold in law, lands, rents, tenements, hereditaments, goods and chattels, and effects of whatsoever kind, nature, and quality, to an amount not exceeding in the whole 55 millions of dollars, including the amount of capital aforesaid. The usual provisions as to trading were inserted; and its bills obligatory, and of credit under seal, were to be transferable by indorsement, but they were not to be for a less sum than 5,000 dollars. All its bills and notes were to be payable to bearer on demand, except those for any sum not less than 100 dollars, payable to order of any individual, and at any time not exceeding 60 days from their date. The bank was to establish a branch of deposit and discount in Columbia, whenever any law of the United States ordered so, and also in any State in which 2,000 shares should be subscribed, or held, whenever, upon the application of the Legislature of the State, Congress might require it by a law. They might also establish any such branches at their own discretion, within the United States, or its territories. No note was to be for less than 5 dollars, and so long as they were payable on demand, they were to be received in payment of all debts due to the United States. It was forbidden to lend the government of the Union more than 500,000 dollars, or that of any State more than 50,000, or to foreign ones at all. All deposits of the money of the United States, in places in which the bank and its branches were established, were to be made in it, unless the secretary to the Treasury should at any time otherwise order and direct, and if he did so, he should immediately lay before Congress his reason for doing so. It was prohibited from suspending payments in specie of any of its obligations; and if it refused payment at any time of any of its obligations to their just holders, it should pay interest at 12 per cent. upon them. In consideration of its exclusive privileges, it should pay the Government of the United States one million and a-half of dollars. It was to exist for two years after the expiry of its charter, for the purpose of winding up its concerns. The same session a resolution was passed, declaring that after the 20th February, 1817, nothing but gold and silver, treasury notes, and the notes of specie-paying banks, *ought* to be received in payment of dues to the United States. The banks had got such a mastery over the community, that a person who wished to enforce payment of ten notes for 100 dollars each from a bank, could get no advocate to undertake the cause for many months.

When at last proceedings were begun, the president of the bank refused to appear. The Sheriff called a *posse comitatus* to his aid, and took the president, by force, before the Court. The bank refusing still to pay the notes, its doors were shut by the sheriff, but in defiance of that, it was soon opened again. In defiance of the resolution of Congress, the banks determined not to resume payment before the 1st July, 1817. At length the legislature of New York passed a law, that imposed a penalty of 12 per cent. on any bank that should not pay its notes in specie.

434. The bank of the United States commenced business at Philadelphia, on the 1st January, 1817, and the opinion held of its utility and operation by the government of the country well deserves our attention, because Sir Robert Peel attributed the subsequent crisis in America to its suppression; this will render it necessary to give these to our readers at some length, in order to enable them to judge whether Sir Robert Peel was borne out in his conclusions. The capital of the bank when it began business was 1,400,000 dollars in specie, and 14,000,000 in public stocks. A second instalment of 2,800,000 became due soon after. "But it is clear," said a contemporary pamphlet, "that the bank having commenced operations, and put its paper into circulation, could not enforce the payment of the specie part of the second and third instalments of the capital in *new acquisitions* of specie. They would be paid either in the notes of the bank, or in the specie which they would draw out of the bank, or with *cheques drawn on the credit of the discounts*, or not at all." But the directors did not wait until the second instalment was due, they passed a resolution in December, before any of the bank's notes were in circulation, authorizing discounts on a pledge of stock. By these means the *payment* of the second instalment was chiefly effected by the credit created on discounting on the pledge of stock; and instead of 2,800,000 of dollars in specie, there were only 324,000 paid in coin. A third instalment of 2,800,000 dollars in coin, and of 7,000,000 in public stock was due on the 1st of July, but a Committee of Congress said, "Of the 2,800,000 dollars which was to have been paid at the third instalment, it is believed that a very trifling amount was paid in coin, and as little of the funded debt, *but that nearly the whole were paid by the proceeds of notes discounted on stock.*" Thus the capital of the Bank of the United States, when all paid in, consisted of about 2,000,000 in specie, instead of 7,000,000, and of about 21,000,000 of funded debt, instead of 28,000,000, and of about 12,000,000 in the bank's own notes obtained by discounts on its own stock!

435. "The Directors," says the Report to Congress, "did not confine themselves to the amount prescribed in the resolution of December the 27th, that is, to the proportion of the coined part of the second instalment, but discounted to the full par value of the stock, *which was paid for by the proceeds of the same discounts*; and the discounts, the payment of the second instalment, the payment of the price to the owner, the transfer, and the pledge of the stock, were, as it is termed, simultaneous operations. All the discounts on stock after the 20th February, 1817, were made at the par value of the shares, which

enabled the discounter not only to pay the whole of the instalments, including the specie part, and the funded debt part, but also to draw out of the bank the amount which might have been paid in on his shares." Every species of gambling in the price of shares, immense loans to directors, and stock-jobbing followed. In January, a convention of delegates from the banks of New York, Philadelphia, Baltimore, Richmond, and Norfolk, met at Philadelphia, and resolved to resume specie payments on the 20th February, provided that the United States Bank should not demand payment for balances due to it from them until it had discounted for persons in New York to the amount of 2,000,000, in Philadelphia, 2,000,000, in Baltimore 1,500,000, and half a million in Virginia. One of the objects of the bank was to equalize the exchange throughout the Union, but this was done, not by making the local banks pay their notes in specie, but by a system of drawing and re-drawing, carried on between the head bank and its branches. The directors at some of the branches caused much embarrassment by their excessive issues. The discounts of the bank, which were 3,000,000 in February, increased to 20,000,000 in April, to 25,000,000 in July, and to 33,000,000 in October; and at the end of the year the "expansion" made by the United States Bank greatly exceeded the "contraction" made by the local banks. The committee of the Senate of Pennsylvania say, "Had the United States Bank been conducted with the discretion and wisdom which were so essential to so powerful a machine, its influence might have been productive of the most happy consequences. The public was aware that the currency of the State banks was still depreciated from excess, and that nothing but a further reduction of their issues could remove its unsoundness, and yet with this fact evident to the most limited capacity, the directors of the new bank fancied, that if they could only persuade the city banks to call that a sound currency, which was in reality an unsound one, the evil of depreciation could be cured, and they accordingly proposed to them to enter into an arrangement to resume specie payment on the 21st of February following. The city banks, sensible that their power over the community was so great, that few individuals would have the boldness to make large demands on them for coin, and relying on the forbearance that had hitherto been extended to them by an injured public, who had for two years and a-half been paying them 6 per cent. for their dishonoured bills, consented to the arrangement, and specie payments were nominally resumed on the appointed day. We say *nominally*, because in point of fact, a *bonâ fide* resumption did not take place, as is evident from the well-known circumstance that for a long time after that period *American*, as well as *foreign* coins, would command on the spot, a price in city bank notes, above their nominal value. Depreciation can as well result from the forbearance of the public to demand their rights, as from the refusal of the banks to pay their engagements; and the arrangement alluded to was not any real resumption of cash payments, but a mere change of one species of convertibility for another. No sooner, however, had the directors of the National Bank succeeded in the

desirable object of rendering depreciated paper an equivalent for their own convertible notes, than, instead of reflecting from an acquaintance with general principles, and from the experience of the past, that the channels of circulation could contain only, without depreciation, but a limited amount of paper credits; and that that amount was already in these channels, they began to add to the mass already redundant, by emissions of their own notes; and in the course of a few months added to the mass of bank loans an amount greatly beyond the reduction which had been made. By these means the currency, although nominally convertible, was depreciated below its former low state, and was thrown back instead of being advanced, on the road to restoration, and thus was rendered nugatory all the pain and embarrassment which the public had suffered from the former curtailments of the State banks."

436. "And," say the Committee of Congress, "the bank improvidently afforded a temptation to the Western Banks particularly, to extend their circulation of notes, by insisting on its branches paying out their own notes in preference to those of the State Banks, and on their delivering drafts on the eastern cities, whenever it could be done, to prevent the remittance of their own notes. The branch notes, and the drafts issued in consequence of these instructions, were swept away, the facility of remittance thus unwarily given, as well as by the ordinary balance of trade. A vacuum in the circulation was thus produced, which could be supplied only by the local notes, which were readily received by the offices of the Bank of the United States, and were retained by them as a fund upon which interest was paid by the State Banks. The committee are of opinion, that instead of conducting with the alleged rigor towards the State Banks, the Bank of the United States is liable to the more serious charge of having increased the amount of notes in circulation by its acceptance of them in those places where it was known they would not be redeemed in specie, and by making them, in the manner before-mentioned, the only circulating medium in that part of the country."

437. The bank went on in the same way the next year, by which time its discounts were 43,000,000. It issued its notes so fast that the officers of the bank could not sign them sufficiently quickly for the demand, and a bill was brought in to appoint extra officers for that purpose, but it was not carried. It sold a considerable part of its funded debt for specie, and then imported 7,000,000 dollars in specie. But as the issues were still excessive, specie was exported faster than it was imported by the bank. From Boston and Salem alone, 5,000,000 of dollars were exported in twelve months, and it was estimated, that from the whole Union, at least 12,000,000 were exported. And, notwithstanding its imports, the bank never had at one time, 3,000,000 dollars in its vaults. In July, it found itself in danger of bankruptcy, and it ordered, that by the 1st of November, there must be a reduction of discounts to the amount of 2,000,000 at Philadelphia, the same at Baltimore, 700,000 at Richmond, and 500,000 at Norfolk; and that the banks of Cincinnati and Columbia must pay their balances due. But

even this was not enough, and a reduction of another million was thought necessary at Philadelphia, a course indeed highly necessary, as the premium on Spanish dollars was already 10 per cent., and was considerable on other coins.

438. This sudden and violent contraction of discounts, to so large an amount in so short a time, caused widespread distress and ruin, which was further increased by an order not to receive at the head office, or branches, as deposits, any notes but those issued at the same office. Thus, every office of the bank dishonoured the paper of every other office of the same bank! This distress spread through the whole community, and plans were broached for creating an inconvertible paper money. Public opinion became hostile to the banks, and they were strongly denounced by the governors of several States. The Governor of New York said, "The embarrassments arising from the disordered state of our currency, have increased instead of diminishing, since I had the honour to address the Legislature on the subject. And unless efficient preventives are adopted, and suitable remedies applied, the evil will be in a state of progressive augmentation. A proposition to invest banks with a power of coining money would have no advocates, and yet it might not be so pernicious as the authority already granted of emitting bank notes." The Governor of Ohio said much the same. The Governor of Kentucky denounced the whole banking system, in the most vehement terms.

439. In November, 1818, a committee of Congress was appointed to investigate the affairs of the bank, and they reported in January, 1819, that it had violated its charter in four particulars,—in buying 2,000,000 of public debt; in not requiring the shareholders to pay the second and third instalments in coin, or public debt; in paying dividends to shareholders who were in arrear for calls; and in allowing persons to have more than their legal number of notes. Motions to cause a *scire facias* to issue, to have the charter forfeited, and to repeal it, were made, but rejected,—a very large number of members being shareholders in it. On the publication of this report, the shares immediately fell to 93, and the President resigned, and Mr. Cheves, of South Carolina, was elected to his place. This gentleman, three years afterwards, gave the shareholders an exposition of the affairs of the bank, and its mismanagement,—the length of which prevents us giving it entire. It details the extravagance of its issues, and the violent contraction it found necessary. Among other things, it said, that on the 1st of April, 1819, the bank at Philadelphia had only 126,745 dollars in its vaults; and the same day, upon striking a balance between it and the city banks, it owed them 79,125 dollars. On the 12th of the same month it had but 71,522 dollars, and it owed the city banks 196,418 dollars: the offices at New York and Boston were even in a worse state, and at the same time, it owed some English houses 900,000 dollars, which it was bound to pay immediately. He said that all the resources of the bank could not have sustained it another month; when, twenty-seven months before, it had commenced business with a free capital of 28,000,000 dollars. Its own officers defrauded it; and at Baltimore alone, it lost from this cause 1,671,221 dollars. Its ag-

gregate losses, arising out of operations which preceded the 6th of March, 1819, exceeded considerably 3,500,000 dollars. The dividends, during the same time, were 4,410,000. But of this 1,348,553 were received as interest on the public debt held by the bank, and the entire losses exceeded the entire profits by more than half a million dollars. It had imported many millions of specie at a great loss, which were entirely exhausted, *and were not yet paid for*, and the directors then expected that it would shortly have to stop payment. This event was universally expected both in and out of the bank. However, upon a general meeting of the directors being held on the 9th of April, strong measures were adopted, and in the space of seventy days it had not only righted itself, but was able to afford assistance to other institutions, which were ascertained to be solvent. But these measures were not effected without the most terrible distress. For a time the general question was not who had gone, but who had stood; confidence was so terribly shaken that even persons in good credit had to pay 36 per cent. for discounts.

440. In August, 1819, it was estimated that there were 20,000 persons daily seeking employment in Philadelphia; the case was very much the same in New York and Baltimore. A committee was appointed to investigate the situation of the manufacturers of Philadelphia. They reported that thirty trades, which employed 9,672 hands in 1816, only employed 2,137 persons in 1819. In Pittsburg, trades which employed 1,960 persons in 1815, employed only 672 persons in 1819. The distress was universal. The papers in the Western States were filled with descriptions of the general ruin and depreciation of the value of property. In one small State, Maryland, the *Gazette* of one day contained six columns of advertisements, by order of the Insolvent Commissioners. The Senate of Pennsylvania appointed a committee to examine into the causes of the distress. The committee reported on the 20th of January, 1820. It enumerated the evils, which were deep and general, and attributed them almost entirely to the abuses of banking, and most severely blamed the misconduct of the United States Bank. The House of Representatives also appointed a committee, which came to the same conclusion. The committee said, "In defiance of all experience, and in contempt of warnings almost prophetic, which were given to them at the time, the people of Pennsylvania, during an expensive war, and in the midst of great embarrassments, established forty-one new banks, with a capital of 17,500,000 dollars, and authority to issue bank notes to double that amount. In consequence of this most destructive measure, the inclination of a large part of the people, created by past prosperity, to live by speculation, and not by labour, was greatly increased, a spirit in all respects akin to gambling, prevailed; a fictitious value was given to all descriptions of property; specie was driven from circulation, as if by common consent; and all efforts to restore society to its natural condition were treated with undisguised contempt. * * * A new measure, however, remained to be adopted, that was really to close the last scene in the drama of error, the currency had already nearly vanished,

but was temporarily restored on the seaboard. The enormity of fictitious credit began to be felt; the abusive extent of paper issues was about to effect its own remedy in the State, when Congress created a *Corporation*, with authority to circulate upwards of 100,000,000 of a new paper medium, a corporation spreading its branches over the Union, with the baneful influence of the fabled upas."

441. To give an adequate picture of the universal ruin and misery, which at this period prostrated the whole country, would far exceed our limits, and yet it is not possible to form a proper conception of its extent, without presenting a large number of extracts from contemporary publications. Those who take an interest in the matter, we may refer to Mr. Gouge's *Short History of Paper Money and Banking in the United States*—Philadelphia, 1833, where they will find an ample series of extracts on the subject.

442. The effects of this terrible revulsion were felt in many States of the Union for several years afterwards. But the interest of the banking portion of the community was too powerful for the good sense of the authorities, and multitudes of fresh banks started on the debris of the old ones, and it would only weary our readers to enter into minute details. In 1824-25 a sympathetic speculation broke out, with the contemporaneous one in England, which of course was followed by an equivalent re-action, and nothing remarkable occurred to detain us till 1829.

443. In the message of President Jackson this year, December 8, 1829, the first attack by the government was made on the bank of the United States. The charter did not expire until 1836; but the President said that a measure of such importance could not be too soon presented to the deliberate consideration of the legislature and the public. "Both the constitutionality and the expediency of the law creating this bank are well questioned by a large portion of our fellow-citizens; and it must be admitted by all, *that it has failed in the great end of establishing a uniform and sound currency.*" This portion of his message was referred to the Committee of Ways and Means to report upon. This report was presented on the 13th of April, 1830, and was a very long and a very able document, taking the opposite view to the President's. It entered into a minute history of the establishment of a National Bank; the evil effects which the abolition of the first bank had upon the currency; the necessity for organizing a second one, which it maintained had fully answered its purpose. It deprecated in the most earnest manner the refusal of a grant of a renewal of the bank's charter.

444. In his message of December, 1830, the President again urged consideration of the bank question on Congress. On the 2nd February, 1831, Mr. Benton moved in the Senate to introduce a resolution that the charter of the bank of the United States ought not to be renewed. Leave, however, was refused by a majority of 23 to 20. In his message of 1831, the President again recommended the bank question to the notice of Congress. On the 9th of January, 1832, the president and directors of the bank presented

a memorial to the Senate, requesting a renewal of the charter, which was referred to a committee of five. This committee prepared a bill to renew the charter of the bank for fifteen years from the time of its expiry in 1836. The bill was introduced into the Senate by Mr. Webster, in an able speech. (*Gales and Seaton, Vol. VIII., p. 954.*) Mr. Benton strongly opposed the renewing of a charter to a single great corporation. He infinitely preferred having a larger number of moderate establishments. He saw the advantage of checking powers in banking governments, as well as in political governments. "The three Scottish banks had held each other in check, had proceeded moderately in all their operations, conducted their business regularly and prudently, and always kept themselves in a condition to face their creditors; while the single English bank, having no check from rival institutions, ran on in the wantonness of its own unbridled power, deluging the country, when it pleased, with paper, and filling it with speculation and extravagance, drawing in again when it pleased, and filling it with bankruptcy and pauperism; often transcending its limits, and twice stopping payment, and once for a period of twenty years. *There can be no question of the incomparable superiority of the Scottish banking system over the English banking system, even in a monarchy.* * * * In the peculiar excellence of the Scottish plan lies a few plain and obvious principles, closely related to Republican ideas. First. No exclusive privileges. Secondly, Three independent banks to check and control each other, and diffuse their benefits, instead of one to do as it pleased, and monopolize the moneyed power. Thirdly. *The liability of each stockholder for the amount of his stock on the failure of the bank to redeem its notes in specie.* Fourthly. The payment of a moderate interest to deposits. Upon these few plain principles, all of them founded in Republican notions, equal rights, and equal justice, the Scottish banks have advanced themselves to the first rank in Europe, have eclipsed the Bank of England, and caused it to be condemned in its own country, and have made themselves the model of all future banking institutions in Great Britain." After a great many amendments and minor divisions, the bill finally passed the Senate by a majority of 28 to 20. In the House of Representatives, the memorial of the bank was referred to the Committee of Ways and Means by a majority of 100 to 90. On the 10th of February, 1832, this Committee, by a majority, brought in a bill to prolong the charter for twenty years after 1836, with some modifications. On the 23rd February, 1832, Mr. Clayton moved for a select committee to examine into the affairs of the bank of the United States, which, after a very keen debate, was carried. The report of the majority of this committee was highly adverse to the management of the bank; it charged it with the same mismanagement and overtrading as in 1819, and in consequence of that a very severe contraction was then going on. On the 1st of March the bank had only 6,800,000 dollars in specie, 2,860,000 dollars in notes of other banks, and no funded debt to meet notes of its own, in circulation 23,717,000 dollars, deposits 17,050,000 dollars, and foreign debts 1,876,000, making an

aggregate of 42,643,000 dollars. The report of the majority of the committee recommended that the present bank should not be re-chartered, nor any other one chartered, until the public debt should have been paid off, and the revenue adjusted to the expenditure. The report of the minority, however, emphatically refuted the charges brought by that of the majority against the bank, in every particular. The bill sent down from the Senate was finally passed by a majority of 106 to 84, and on the 4th July was sent up to the President. The President, however, on the 10th July vetoed the bill as mischievous and unconstitutional, adducing many arguments of great cogency. On the message being sent to the Senate, and a motion made to declare the bill law, notwithstanding the veto of the President, which required a majority of two-thirds, the motion was lost by 22 to 19.

445. In his message to Congress in December, 1832, the language of the President regarding the bank became stronger and more decided: he even gave very strong hints as to its doubtful solvency. "Such measures as are within reach of the Secretary of the Treasury have been taken to enable him to judge whether the public deposits in that institution may be regarded as entirely safe; but as his limited power may prove inadequate to this object, I recommend the subject to the attention of Congress, under the firm belief that it is worthy of their serious investigation. An inquiry into the transactions of the institution, embracing the branches as well as the principal bank, seems called for by the credit which is given throughout the country to many serious charges, impeaching its character, and which, if true, may justly excite the apprehension that it is no longer a safe depository of the money of the people." In consequence of this portion of the message, the House of Representatives referred the question to the Committee of Ways and Means, to examine into the grounds of the doubts of the solvency of the bank. The majority of the committee reported entirely in its favour; it said that the total liabilities of the bank were \$7,800,000 dollars, and, if the evidence and statements of the directors could be relied on, its available and secure resources were 80,865,000 dollars. The report concluded by saying that if the evidence could be relied on, there could be no doubt of the entire soundness of the whole bank capital, after meeting all demands upon it; and it recommended a resolution that in the opinion of the house the government deposits might safely be continued in it, which was carried by a majority of 109 to 46.

446. At the Presidential election of 1832, the question of the renewal of the bank charter was one of the principal ones on which the election turned. General Jackson had always been inflexibly opposed to the monopoly of the bank. When he was elected, it was understood as the general verdict of the majority of the people against the continuance of the bank. Notwithstanding the vote of the House of Representatives in July, that the deposits of the United States might be safely continued in the bank, the Secretary to the Treasury withdrew them from the bank in September and October, 1833, and placed them in several of the State banks. In accordance with the law, the secretary laid before Congress a statement of his reasons for

so doing. In this he alleged not only that the approaching period of the termination of the charter imperatively required that such a thing should be done some time before its expiring, in order to prevent much inconvenience both to commerce and the government from such an event taking place on a sudden, but he brought forward the gravest charges of corruption and misconduct against the bank itself, which were corroborated by memorials from the government directors. He alleged that the bank had ostensibly petitioned for a renewal of its charter in 1832, four years before its expiring, on the ground that its operations were so extensive, that if the charter was not to be renewed, it was necessary, for the welfare of the country, that it should begin cautiously and gradually to contract them; and yet, since then, when the bank was still nearer the end of its existence, and when they had no reason to expect a renewal of the charter, they had increased their issues most extravagantly. In the end of December, 1830, its advances were 42,402,304 dollars, and at the end of 1831 they were 63,026,452 dollars, being an increase of 20,000,000, or nearly 50 per cent.; and by the end of May, 1832, they had still further increased to 70,428,070 dollars, being an increase of 28,026,766 dollars, or 66 per cent., in the space of sixteen months. There was ample evidence before the government that this extraordinary increase had taken place for political reasons, and in order to give the bank a greater hold over the community. They had spent immense sums in disseminating speeches, pamphlets, essays, and articles throughout the Union, and the other directors had systematically excluded the government directors from the knowledge of many of the most important of the bank's operations. The other directors of the bank were not slow in replying, and they well bespattered the President and his friends with mud, and countercharges of political hostility to the Bank. It is certainly possible, that there was an amount of truth in this, but yet the solid facts charged against the bank were unrefuted.

447. This very strong measure of removing the deposits from the Bank of the United States, gave rise, of course, to the most virulent and protracted controversy. The President had dismissed Mr. Duane, the Secretary of the Treasury, because he had declined to remove them. The debates began in the Senate on the 26th December, 1833, when Mr. Clay moved that the President, by dismissing a Secretary to the Treasury, because he conscientiously disapproved of removing the deposits, and appointing another to effect that purpose, had assumed a power over the Treasury of the United States, not granted to him by the constitution and laws, and dangerous to the liberties of the people; and that the reasons assigned by the Secretary to the Treasury for removing the deposits were unsatisfactory and insufficient. The conclusion of Mr. Clay's speech was followed by the most vehement outbursts of applause from the crowds which thronged the galleries and lobbies. The debate continued, with little interruption, for three months, at the end of which Mr. Clay modified his resolution, and proposed it thus, *resolved*, "That the President, in the late executive proceedings in relation to the public revenue, has assumed upon himself

authority and power not conferred by the constitution and laws, but in derogation of both;" and this resolution was carried by 26 to 20. To this very serious resolution the President returned an energetic protest, showing its unconstitutionality, and quoting resolutions from the legislatures of the States, in accordance with his own views. The President demanded that his protest should be entered in the journals of the Senate. Upon this, a debate began ten times more furious than the preceding one; and after nearly a month, it was resolved by a majority of 27 to 16 that the protest asserted powers on behalf of the President, which were inconsistent with the constitution and the just authority of Congress, that it was a breach of the privileges of the Senate, and should not be entered in their journals. The debates in the House of Representatives were equally animated. But the will of the President finally prevailed, notwithstanding all the speeches and resolutions of both houses of Congress; and a bill was eventually passed for regulating the deposits in the State banks.

448. But the bank and its friends were by no means inclined to give up the struggle. On the 18th of March, 1834, Mr. Webster moved for leave to bring in a bill to continue for six years, the Act incorporating the subscribers to the bank of the United States. He described the universal distress the country was suffering under, which he attributed entirely to the removal of the deposits from the United States Bank. He dwelt upon the extreme importance of credit in modern commerce. "Commercial credit is the creation of modern times, and belongs in its highest perfection, only to the most enlightened and best-governed nations. In the primitive ages of commerce, article is exchanged for article, without the use of money or credit. This is simple barter. But in its progress a symbol of property, a common measure of value is introduced, to facilitate the exchanges of property, and this may be iron, or any other article fixed by law, or by consent, but has generally been gold and silver. This, certainly, is a great advance beyond simple barter, but no greater than has been gained, in modern times, by proceeding from the mere use of money to the use of credit. Credit is the vital air of the system of modern commerce. *It has done more, a thousand times, to enrich nations, than all the mines of all the world.* It has excited labour, stimulated manufactures, pushed commerce over every sea, and brought every nation, every kingdom, and every small tribe among the races of men, to be known to all the rest; it has raised armies, equipped navies, and triumphing over the gross power of mere numbers; it has established national superiority on the foundation of intelligence, wealth, and well-directed industry. Credit is to money what money is to articles of merchandize. * * * I hold the immediate convertibility of bank notes into specie to be an indispensable security to their retaining their value; but consistently with this security, and indeed, founded upon it, credit becomes the great agent of exchange. It is allowed that it increases consumption, by anticipating products; and that it supplies present wants out of future means. And as it circulates commodities without the actual use of gold and silver, it not only saves much by doing away

with the constant transportation of the precious metals from place to place, but accomplishes exchanges with a degree of dispatch and punctuality not otherwise to be obtained. All bills of exchange, all notes running upon time, as well as the paper circulation of the banks, belong to the system of commercial credit. * * *

It is very true that commercial credit, and the system of banking as a part of it, does furnish a substitute for capital." Nothing, however, eventually came of this motion, as the public mind was so distracted and divided upon the subject, that it was impossible to agree upon any course. The will of the President prevailed over the votes of both houses of Congress, and the charter of the bank was not renewed; but it obtained one as an ordinary State bank from the legislature of Pennsylvania, and thenceforth, during the short remainder of its existence, it was no more than a common State bank.

449. In December, 1834, the President having conquered all opposition, was still more emphatic in his denunciation of the bank. "Circumstances make it my duty to call the attention of Congress to the bank of the United States. Created for the convenience of the government, that institution has become the scourge of the people. Its interference to postpone the payment of a portion of the national debt, that it might retain the public money appropriated for that purpose, to strengthen it in a political contest, the extraordinary extension and contraction of its accommodations to the community—its corrupt and partisan loans—its exclusion of the public directors from a knowledge of its most important proceedings—the unlimited authority conferred on the President to expend its funds in hiring writers, and procuring the execution of printing, and the use made of that authority—the retention of the pension-money and books, after the selection of new agents—the groundless claims to heavy damages in consequence of the protest of the bill drawn on the French government, have through various channels been laid before Congress. Immediately after the close of the last session, the bank, through its President, announced its ability and readiness to abandon the system of unparalleled curtailment, and the interruption of domestic exchanges which it had practised upon from the 1st of August, 1833, to the 30th of June, 1834, and to extend its accommodations to the community. The grounds assumed in this annunciation amounted to an acknowledgment that the curtailment in the amount to which it had been carried, was not necessary to the safety of the bank, and had been persisted in merely to induce Congress to grant the prayer of the bank in its memorial relative to the removal of the deposits, and to give it a new charter. They were substantially a confession that all the real distresses which individuals and the country had endured for the preceding six or eight months, had been needlessly produced by it, with the view of affecting, through the sufferings of the people, the legislative action of Congress. It is a subject of congratulation that Congress and the country had the virtue and firmness to bear the infliction; that the energies of our people soon found relief from this wanton tyranny, in vast importations of the precious metals from almost every part of the world, and at the close of this tremendous

effort to control the bank, our government found itself powerless, and no longer able to loan out its surplus means. The community had learnt to manage its affairs without its assistance, and trade had already found new auxiliaries, so that on the 1st of October last the extraordinary spectacle was presented of a National Bank, more than one-half of whose capital was either lying unproductive in its vaults, or in the hands of foreign bankers."

450. One great object of President Jackson and the party with which he acted was to abolish the small notes, which circulated throughout the Union, for a dollar, and even half-a-dollar, and to substitute gold and silver. In his message of 1835, he again recurs to the bank. "Connected with the condition of the finances, and the flourishing state of the country in all its branches of industry, it is pleasing to witness the advantages which have already been derived from the recent law regulating the value of the gold coinage. These advantages will be more apparent in the course of the next year, when the branch mints authorized to be established in North Carolina, Georgia, and Louisiana, shall have gone into operation. Aided, as it is hoped they will be, by further reforms in the banking systems of the States, and by judicious regulations on the part of Congress in relation to the custody of the public moneys, it may be confidently anticipated that the use of gold and silver as a circulating medium, will become general in the ordinary transactions connected with the labour of the country. The great desideratum in modern times, is an efficient check upon the power of banks, preventing that excessive issue of paper, whence arise the fluctuations in the standard of value which render uncertain the rewards of labour. It was supposed by those who established the bank of the United States, that from the credit given to it by the custody of the public moneys and other privileges, and the cautions taken to guard against the evils which the country had suffered in the bankruptcy of many of the State institutions of that period, we should derive from that institution all the security and benefits of a sound currency, and every good end that was attainable under that provision of the constitution, which authorizes Congress alone to coin money, and regulate the value thereof. But it is scarcely necessary now to say that these anticipations have not been realized. After the extensive embarrassments, recently produced by the bank of the United States, from which the country is now recovering, aggravated as they were by pretensions to power, which defied the public authority, and which, if acquiesced in by the people, would have changed the whole character of our government, every candid and intelligent individual must admit that for the attainment of the great advantages of a sound currency, we must look to a course of legislation radically different from that which created such an institution. * * *

The experience of another year has confirmed the utter fallacy of the idea that the bank of the United States was necessary as a fiscal agent of the government."

451. In 1836, the President again entered very fully into the question of the currency, and a national bank. "It is apparent from the whole

context of the constitution, as well as the history of the times, which gave birth to it, that it was the purpose of the convention to establish a currency consisting of the precious metals. These, from their peculiar properties, which rendered them the standard of value in all other countries, were adopted in this, as well to establish its commercial standard in reference to foreign countries, by a permanent rule, as to exclude the use of a mutable medium of exchange, such as of certain agricultural commodities, recognized by the statutes of some States as a tender for debts, or the still more pernicious expedient of a paper currency. The last from the experience of the evils of the issues of paper during the revolution, had become so justly obnoxious, as not only to suggest the clause in the constitution forbidding the emission of bills of credit by the States, but also to produce that vote in the convention, which negatived the proposition to grant power to Congress to charter corporations; a proposition well understood at the time as intended to authorize the establishment of a national bank, which was to issue a currency of bank notes, as a capital to be created to some extent out of government stocks. Although this proposition was refused by a direct vote of the convention, the object was afterwards in effect obtained by its ingenious advocates, through a strained construction of the constitution. The debts of the Revolution were funded at prices which formed no equivalent, compared with the nominal amount of the stock, and under circumstances which exposed the motives of some of those who participated in the passage of the Act, to some distrust. The fact that the value of the stocks was greatly enhanced by the creation of the bank, that it was well understood that such would be the case, and that some of the advocates of the measure were largely benefited by it, belong to the history of the times, and are well calculated to diminish the respect which might otherwise have been due to the action of the Congress which created the institution. On the establishment of a national bank, it became the interest of its creditors that gold should be superseded by the paper of a bank, as a general currency. A value was soon attached to the gold coins, which made their exportation to foreign countries as a mercantile commodity, more profitable than their retention and use at home, as money. It followed as a matter of course, if not designed by those who established the bank, that the bank became in effect a substitute for the Mint of the United States. Such was the origin of a national bank currency, and such was the beginning of those difficulties which now appear in the excessive issues of the banks incorporated by the various states. Although it may not be possible by any legislative means within our power, to change at once the system which has been introduced, and has received the acquiescence of all portions of the country, it is certainly our duty to do all that is consistent with our constitutional obligations, to prevent the mischiefs which are threatened by its undue extension. That the efforts of the fathers of our government to guard against it by a constitutional provision were founded on an intimate knowledge of the subject, has been frequently attested by the bitter experience of the country.

The same course which led them to refuse their sanction to a power authorizing the establishment of incorporation for banking purposes, now exists in a much stronger degree to urge us to exert the utmost vigilance in calling into action the means necessary to correct the evils resulting from the unfortunate exercise of the power; and it is to be hoped that the opportunity of effecting this great good will be improved before the country witnesses new scenes of embarrassment and distress. Variableness must ever be the characteristic of a currency, of which the precious metals are not the chief ingredients, or which can be expanded or contracted without regard to the principles that regulate the value of those metals as a standard in the general trade of the world. With us, bank issues constitute such a currency, and must ever do so until they are made dependant on those just proportions of gold and silver, as a circulating medium, which experience has proved to be necessary, not only in this, but in all other commercial countries. When those proportions are not infused into the circulation, and do not control it, it is manifest that prices must vary according to the tide of bank issues, and the value and stability of property must stand exposed to all the uncertainty which attends the administration of institutions that are constantly liable to the temptations of an interest distinct from that of the community in which they are established. The progress of an expansion, or rather a depreciation of the currency, by excessive bank issues, is always attended by a loss to the labouring classes. This portion of the community have neither time nor opportunity to watch the ebbs and flows of the money market. Engaged from day to day in their useful toils, they do not perceive that although their wages are nominally the same, or even somewhat higher, they are greatly reduced in fact by the rapid increase of a spurious currency, which, as it appears to make money abound, they are at first inclined to consider a blessing. It is not so with the speculator, by whom this operation is better understood, and is made to contribute to his advantage. It is not until the prices of the necessities of life become so dear, that the labouring classes cannot supply their wants out of their wages, that the wages rise, and gradually reach a justly proportioned rate to that of the products of their labour. When thus by the depreciation, in consequence of the quantity of paper in circulation, wages as well as prices become exorbitant, it is soon found that the whole effect of the adulterations is a tariff on our home industry, for the benefit of the countries where gold and silver circulate, and maintain uniformity and moderation in prices. It is then perceived that the enhancement of the price of land and labour produces a corresponding increase in the price of products, until these products do not sustain a competition with similar ones in other countries, and thus both manufactured and agricultural productions cease to bear exportation from the country of the spurious currency, because they cannot be sold for cost. This is the process by which specie is banished by the paper of the banks. Their vaults are soon exhausted to pay for foreign commodities, the next is a stoppage of specie payments,—a total degradation of paper as a currency, un-

usual depression of prices, the ruin of debtors, and the accumulation of property in the hands of creditors, and cautious capitalists. It was in view of these evils, together with the dangerous power wielded by the bank of the United States, and its repugnance to our constitution, that I was induced to exert the power conferred upon me by the American people to prevent the continuance of that institution. But although various dangers to our republican institutions have been obviated by the failure of that bank to extort from the government a renewal of its charter, it is obvious that little has been accomplished except a salutary change of public opinion towards restoring to the country the sound currency provided for in the constitution. In the Acts of several of the States prohibiting the circulation of small notes, and the auxiliary enactments of Congress at the last session, forbidding their reception or payment on public account, the true policy of the country has been advanced, and a larger portion of the precious metals infused into our circulating medium. These measures will probably be followed up in due time by the enactment of State laws, banishing from circulation bank notes of still higher denominations; and the object may be materially promoted by further Acts of Congress, forbidding the employment as fiscal agents, of such banks as continue to issue notes of low denominations, and throwing impediments in the way of the circulation of gold and silver. The effects of the extension of bank credits, and over issues of bank paper, have been strikingly illustrated in the sale of public lands. From the returns made by the various registers and receivers in the early part of last summer, it was perceived that the receipts arising from the sales of the public lands were increasing to an unprecedented amount. In effect, however, these receipts amounted to nothing more than credits in bank. The banks let out their notes to speculators, they were paid to the receivers, and immediately returned to the banks, to be sent out again and again, being mere instruments to transfer to speculators the most valuable public land, and pay the government by a credit on the books of the banks. *These credits on the books of some of the Western banks, usually called deposits,* were already greatly beyond their immediate means of payment, and were rapidly increasing. Indeed, each speculation furnished means for another, for no sooner had one individual, or company, paid in the notes, than they were immediately lent to another for a like purpose, and the banks were extending their business and their issues so largely, as to alarm considerate men, and render it doubtful whether these bank credits, if permitted to accumulate, would ultimately be of the least value to the government. The spirit of expansion and speculation was not confined to the deposit banks, but pervaded the whole multitude of banks throughout the Union, and was giving rise to new institutions to aggravate the evil. The safety of the public funds, and the interest of the people generally, required that these operations should be checked, and it became the duty of every branch of the general and State governments, to adopt all legitimate and proper means to produce that salutary effect. Under this view of my duty, I directed

the issuing of the order which will be laid before you by the Secretary of the Treasury, requiring payment for the public lands sold, to be made in specie, with an exception until the 15th of the present month, in favour of actual settlers. This measure has produced many salutary consequences. It checked the career of the western banks, and gave them additional strength in anticipation of the pressure, which has since pervaded our eastern as well as the European commercial cities. By preventing the extension of the credit system, it measurably cut off the means of speculation, and retarded its progress in monopolizing the most valuable of the public lands. It has tended to save the new States from a non-resident proprietorship, one of the greatest obstacles to the advancement of a new country, and the prosperity of an old one. It has tended to keep open the public lands for entry by emigrants at government prices, instead of being compelled to purchase of speculators at double or treble prices. And it is conveying into the interior large sums in silver and gold, there to enter permanently into the currency of the country, and place it on a firmer foundation. * * * Experience continues to realize the expectations entertained as to the capacity of the State banks to perform the duties of fiscal agents for the government, at the time of the removal of the deposits. It was alleged by the advocates of the Bank of the United States, that the State banks, whatever might be the regulations of the Treasury department, could not make the transfers required by the government, or negotiate the domestic exchanges of the country. It is now well ascertained that the real domestic exchanges, performed through discounts, by the United States Bank, and its 25 branches, were at least one-third less than those of the deposit banks for an equal period of time; and if a comparison be instituted between the amounts of service rendered by these institutions, on the broader basis which has been used by the advocates of the United States Bank, in estimating what they consider the domestic exchanges transacted by it, the result will be still more favourable to the deposit banks. The whole amount of public money transferred by the Bank of the United States in 1832, was 16,000,000 dollars. The amount transferred and actually paid by the deposit banks, in the year ending the 1st of October last, was 39,319,899 dollars; the amount transferred and paid between that period and the 6th of November was 5,399,000 dollars, and the amount of transfer warrants outstanding on that day was 14,450,000 dollars, making an aggregate of 59,168,894 dollars. These enormous sums of money first mentioned have been transferred with the greatest promptitude and regularity, and the rates at which the exchanges have been negotiated, previously to the passage of the Deposit Act, were generally below those charged by the Bank of the United States. Independently of these services, which are far greater than those rendered by the United States Bank and its twenty-five branches, a number of the deposit banks have, with a commendable zeal to aid in the improvement of the currency, imported from abroad, at their own expense, large sums of the precious metals for coinage and circulation. In the same manner have nearly all the

predictions turned out in respect to the effect of the removal of the deposits—a step unquestionably necessary to prevent the evils which it was foreseen the bank itself would endeavour to create in a final struggle to procure a renewal of its charter. It may be thus, too, in some degree, with the further steps which may be taken to prevent the excessive issue of other bank paper; but it is to be hoped that nothing will now deter the federal and state authorities from the firm and vigorous performance of their duties to themselves and the people in this respect. . . . The conduct and present condition of that bank, and the great amount of capital vested in it by the United States, require your careful attention. Its charter expired on the 3rd day of March last, and it has now no power but that given in the 21st section,—“to use the corporate name, style, and capacity for the purpose of suits, for the final settlement and liquidation of the affairs and accounts of the corporation, and for the sale and disposition of their estate, real, personal, and mixed, but not for any other purpose, or in any other manner whatsoever, nor for a period exceeding two years after the expiration of the said term of incorporation.” Before the expiration of the charter, the stockholders of the bank obtained an act of incorporation from the Legislature of Pennsylvania, excluding only the United States. Instead of proceeding to wind up their concerns, and pay over to the United States the amount due on account of the stock held by them, the president and directors of the old bank appear to have transferred the books, papers, notes, obligations, and most or all of its property, to this new corporation, which entered upon business as a continuation of the old concern. Amongst other acts of questionable validity, the notes of the expired corporation are known to have been used as its own, and again put in circulation. That the old bank had no right to issue or reissue its notes after the expiration of its charter, cannot be denied, and that it could not confer any such right on its substitute, any more than exercise it itself, is equally plain. In law and honesty, the notes of the bank in circulation, at the expiration of its charter, should have been called in by public advertisement, paid up as presented, and, together with those on hand, cancelled and destroyed. Their re-issue is sanctioned by no law, and warranted by no necessity. If the United States be responsible in their stock for the payment of these notes, their re-issue by the new corporation, for their own profit is a fraud on the government. If the United States is not responsible, then there is no legal responsibility in any quarter, and it is a fraud on the country. They are the redeemed notes of a dissolved partnership, but contrary to the wishes of the retiring partner, and without his consent, are again re-issued and circulated. . . . The lessons taught by the Bank of the United States cannot well be lost upon the American people. They will take care never again to place so tremendous a power in irresponsible hands; and it will be fortunate if they seriously consider the consequences which are likely to result on a smaller scale from the facility with which corporate powers are granted by the State governments.” Thus ended the era of a central national bank in the United States.

452. We have already shown, in the sketch of the history of Banking in England, that the years 1834-35-36 were years of great commercial speculation, arising, very greatly, from the extremely plentiful harvests, and the rapid multiplication of joint-stock banks. We have just seen that the very same thing took place in the United States. The Bank of the United States took the lead in this race of evil. We have already shown how it increased its issues in these years, partly as alleged by the President, for party purposes: but the other banks did exactly the same thing. The consequence was a general spirit of wild speculation in every conceivable thing. The year 1837 began with a very severe pressure on the money market in London; and this was not long in extending itself to America. In the beginning of this year, however, we may note that the Senate ordered the resolution of censure which it had passed on President Jackson to be expunged from its books, declaring it to be arbitrary and contrary to the constitution, and unjust and unmerited. To show how banking had increased at this time, the Report of the Secretary to the Treasury showed that in 1834 the circulation of the banks in the Union was 94,000,000 dollars; in 1836 it was 140,000,000 dollars; the total liabilities of the banks in 1834 were 195,000,000 dollars; in 1836 they were 330,000,000. In March, the difficulties in London were supposed to have been got over, and attention began to be strongly directed to the United States, as it was known that English persons who had sent their money over to be invested there, when it was cheap in London, were now calling it in as rapidly as they could. It was fully expected that this would cause great distress in New York, and all the other trading cities in the United States. (*The Times*, March 8, 1837). And the same doubts were then beginning to press upon the Americans. They were then becoming alarmed as to how they were to meet the payments due for the enormous importations of the preceding year. About the end of March a number of large American houses were obliged to apply for assistance to the Bank of England, which was granted to them.

453. While a crisis was generally expected on both sides of the Atlantic, President Jackson retired from office, and in his farewell address to the citizens of the United States he took occasion to reiterate his solemn warning of the danger of the American system of paper currency. “In renewing the conflicts which have taken place between different interests in the United States, and the policy pursued since the adoption of our present form of government, we find nothing that has produced such deep-seated evil as the course of legislation in relation to the currency. The constitution of the United States unquestionably intended to secure to the people a circulating medium of gold and silver; but the establishment of a National Bank by Congress, with the privilege of issuing paper money receivable in the payment of the public dues, and the unfortunate course of legislation by the several States on the same subject, drew from general circulation the constitutional currency, and substituted one of paper in its place.” He then entered into a minute account of the evils caused by the arbitrary increase and contraction of a paper

currency, the gambling spirit evoked by the fluctuations in value of a paper currency, and the ruin caused by it. "Recent events have proved that the paper money system of this country may be used as an engine to undermine your free institutions; and that those who desire to engross all power in the hands of the few, and to govern by corruption or force, are aware of its power, and prepared to employ it. Your banks now furnish your only circulating medium, and money is plenty or scarce, according to the quantity of notes issued by them. While they have capitals not greatly disproportioned to each other, they are competitors in business, and no one of them can exercise dominion over the rest; and although in the present state of the currency, these banks may and do operate injuriously upon the habits of business, the pecuniary concerns and the moral tone of society, yet from their number and dispersed situation, they cannot combine for the purposes of political influence, and whatever may be the dispositions of some of them, their power of mischief must necessarily be confined to a narrow space, and felt only in their immediate neighbourhoods. But when the Charter of the Bank of the United States was obtained from Congress, it perfected the schemes of the paper system, and gave its advocates the position they have struggled to obtain, from the commencement of the federal government down to the present hour. The immense capital, the peculiar privileges bestowed upon it, enabled it to exercise despotic sway over the other banks in every part of the country. From its superior strength, it could seriously injure, if not destroy, the business of any one of them which might incur its resentment; and it openly claimed for itself the power of regulating the currency throughout the United States. In other words, it asserted, (and it undoubtedly possessed), the power to make money plenty or scarce at its pleasure, at any time, and in any quarter of the Union, by controlling the issues of other banks, and permitting an expansion, or compelling a general contraction of the circulating medium, according to its own will. The other banking institutions were sensible of its strength, and they soon generally became its obedient instruments, ready at all times to execute its mandates; and, with the banks, necessarily went also that numerous class of persons in our commercial cities, who depend altogether on bank credits for their solvency and means of business, and who are therefore obliged, for their own safety, to propitiate the favour of the money power by distinguished zeal and devotion to its service. The result of the ill-advised legislation which established this great monopoly, was to concentrate the whole monied power of the Union, with its boundless means of corruption, and its numerous dependents, under the direction and command of one acknowledged head, thus organizing this particular interest as one body, and securing to it unity and concert of action throughout the United States, and enabling it to bring forward upon any occasion its entire and undivided strength, to support or defeat any measure of the government. In the hands of this formidable power, thus perfectly organized, was also placed unlimited dominion over the amount

of the circulating medium, giving it the power to regulate the value of property and the fruits of labour in every quarter of the Union, and to bestow prosperity, or bring ruin upon any city or section of the country, as might best comport with its own interest or policy.

"We are not left to conjecture how the monied power, thus organized, and with such a weapon in its hands, would be likely to use it. The distress and alarm which pervaded and agitated the whole country, when the Bank of the United States waged war upon the people, in order to compel them to submit to its demands, cannot yet be forgotten. The ruthless and unsparing temper with which whole cities and communities were oppressed, individuals impoverished and ruined, and a scene of cheerful prosperity suddenly changed into one of gloom and despondency, ought to be indelibly impressed on the memory of the people of the United States. If such was its power in a time of peace, what would it not have been in a season of war, with an enemy at your doors. No nation but the freemen of the United States could have come out victorious from such a contest; yet, if you had not conquered, the government would have passed from the hands of the many to that of the few; and this organized money power, from its secret conclave, would have dictated the choice of your highest officers, and compelled you to make peace or war, as best suited their own wishes. The forms of your government might for a time have remained; but its living spirit would have departed from it.

"The distress and sufferings inflicted upon the people by the bank, are some of the fruits of that system of policy, which is continually striving to enlarge the authority of the federal government beyond the limits fixed by the constitution. The powers enumerated in that instrument do not confer on Congress the right to establish such a corporation as the Bank of the United States; and the evil consequences which followed may warn us of the danger of departing from the true rule of construction, and of permitting temporary circumstances, or the hope of better promoting the public welfare, to influence in any degree our decisions upon the extent of the authority of the general government. Let us abide by the constitution as it is written, or amend it in the constitutional mode if it is found to be defective. The severe lessons of experience will, I doubt not, be sufficient to prevent Congress from again chartering such a monopoly, even if the constitution did not present an insuperable objection to it."

454. The crisis in America, which had long been foreseen by every rational man who paid attention to its commercial dealings during the preceding twelve months, began at New Orleans, at the beginning of March, when several houses were obliged to apply to the banks there for assistance. About the 18th of that month the houses of New York connected with those in the South began to fail, and by the end of the month, the failures had become general throughout the Union. The Bank of the United States was applied to, to remit coin to Europe, to issue post notes payable at Philadelphia, and bonds payable at some distant date in London, Paris, and Amsterdam. The bank promptly agreed to assist the mer-

chants; and the banks of New York agreed to co-operate with the United States Bank, and increase their discounts by the aggregate sum of 1,500,000 dollars. The Philadelphia banks did the same. These new securities were sent over to England and favourably received. By the beginning of April the failures in New York reached 100, and their amount was not less than £3,000,000. Immense quantities of these bonds were remitted, and soon after the people in America began to think that they were not so advantageous as had been supposed. The bonds were sold at prices equivalent to borrowing at two per cent. per month, and the bank of the United States had got possession of all the best New York paper which fell due during the next six months, of which it would demand payment in specie. The banks in New York began to organize measures to resist this demand for specie. In New Orleans, discount on the best paper rose to five or six per cent. per month. "The distress and panic," says a contemporary writer, "now pervading the United States, have never been equalled since the Revolutionary war. * * * The accounts from every quarter of the union are of the same gloomy character;—every mail adds to the list of failures. In this city, during the month of April, about 250 houses have already suspended payment: it will be fortunate if the number is not doubled during the next thirty days."

455. At length the crisis burst at New York on the 8th of May. The shares of the Bank of the United States fell from 118 to 98 in a few days; and those of other banks in a greater ratio. A run began on the Mechanics', and the Dry Dock Banks;—the former stood, but the latter, after paying away 100,000 dollars, stopped. The three banks in Buffalo stopped. The entire body of banks then in New York, after full deliberation, resolved to suspend specie payments together; and an Act was hurried through the Legislature, which was then sitting, to legalize the suspension. This measure produced great instant relief, and was immediately followed by all the banks in the Union, about 700 in number, the Bank of the United States among the rest. In New York the paper of the city banks fell to ten or twelve discount. This depreciation, of course, extended rapidly throughout the country. The notes in Mississippi fell to a discount of 25 per cent. compared with the city notes of New Orleans; and to 45 per cent. compared with specie. The distress and confusion caused by this state of things caused somewhat of a re-action in favour of a national bank.

456. A very general demand arose that the President should summon an early meeting of Congress to consider what was to be done, which the President, having resisted for some time, was obliged to do. Congress was summoned to meet in September. The message, of course, was entirely occupied with the commercial crisis, which the President attributed to the excessive issues of banks, both in England and America. He decidedly discouraged the idea of founding another national bank, and said that experience disproved the idea that the existence of a national bank would have prevented the crisis. The Bank of the United States did not, and could

not, prevent former and similar embarrassments, and, notwithstanding the strength it had been supposed to acquire under its present charter, had it either checked other institutions, or been able to save itself. The question of a national bank was of course brought up; but a majority of 123 to 91 in the House of Representatives voted against it.

457. The Bank of the United States having been defeated in its attempt to obtain a renewal of its charter from Congress, applied for and obtained one from the Legislature of Pennsylvania. The stockholders were incorporated,—except the United States,—and allowed to make up their capital to its former amount by other subscriptions; but the charter conferred upon them novel and most dangerous powers, namely, dealing in exchanges and merchandize;—that is, the directors were allowed to apply the money of the stockholders or depositors in any commercial speculation they chose. At this period, finding that their bonds had been so well received in England, they determined to send over agents of their own to manage their exchange and mercantile speculations. This was viewed with much jealousy in the city.

458. Many meetings were held in the States by the banks with a view to resume payments in cash. The Bank of the United States made an attempt to resume cash payments in August, in order to obtain the government deposits, in terms of the law which enacted that they should be placed in the nearest specie paying bank, but the entanglements and engagements of this bank were so great that it was found to be quite impossible; and thus Mr. Biddle's expected triumph over the executive was frustrated. In the month of January, 1838, things became still worse in New England;—several of the banks in Boston became insolvent, and an association was formed, which refused to take the notes of a number of the others; the discount on the bills and notes fell still lower,—in some cases as much as 70 and 80 per cent. An investigation into the affairs of the Franklin Bank, showed the statements and figures put forward by many of the banks were fraudulent. To show how extravagantly the Massachusetts banks had been over-trading, the following figures exhibit the specie they held as compared to their issues:—In the county of Suffolk the banks had 1 dollar in specie to 4 in paper; in Middlesex, 1 to 11; in Worcester, 1 to 18; in Franklin, 1 to 17; in Hampshire, 1 to 41; in Hampden, 1 to 19; in Berkshire, 1 to 25; in Norfolk, 1 to 19; in Bristol, 1 to 19; in Plymouth, 1 to 16; in Barnstable, 1 to 16; and in Nantucket, 1 to 11; and the investigations that took place shewed that a number of the banks were in the habit of loaning a quantity of specie to each other to make up the quantity required by law, when the commissioners came to inspect the state of the bank.

459. In March, 1838, the New York banks having been for some time acting on a system of severe curtailment, the exchanges turned in favour of America, and left a large profit on the import of gold. The Bank of England, which had only just escaped a very severe crisis itself, adopted the astounding measure of exporting a million of gold to the United States. The New

York banks, meantime, had been making the most vigorous efforts to obtain specie. They had reduced their liabilities from 26,480,000 dollars on the 1st of January, 1837, to 12,920,000 dollars on the 1st of January, 1838; and they sold every description of security which had come into their hands. To show the rash and dangerous character of their system, one bank alone, at a single public sale, put up 6,378 shares in twenty-two different companies. Advances had been made in 1836, upon the security of shares, to the amount of 20 per cent. above their par value, and as they then sold for 40 per cent. below that, it was calculated that this one bank would not get out of that single sale with a loss less than 800,000 dollars. And the case of this bank was more or less that of many others. It was, however, determined, if possible, to resume payments on the 10th of May.

460. At the same time the extraordinary operations of Biddle's Bank (as the United States Bank was called,) began to excite, in the minds of mercantile men, great doubts of its stability. The reports from various branches disclosed that a very large portion of its assets were of a bad and doubtful nature, and it began new issues of paper, payable in distant parts of the Union, without any authority beyond a State charter. Immense quantities of obligations were sent over by every mail to London to the agency there, promising about double the rate of interest obtainable on the best English securities. The consequence was that numbers of people were tempted to buy these up, trusting to the supposed magnitude of the capital.

461. Up to this time all the banks in the States were chartered, and no private or unincorporated persons were allowed to carry on the business of banking. In 1829 the numerous bank failures which had occurred in the Union since 1816, induced the Legislature of New York to organize what was called "a safety fund." By this Act all monied corporations, having banking powers, created in future, or whose charters should be renewed or extended, were ordered to pay to the treasurer of the State, every 1st of January, a sum equal to one half per cent. of its capital stock, and such payments were to be continued until they had paid in 3 per cent. of their capital. This money was to remain the property of the corporation, but was to be invested by the treasurer, and the annual profits paid over to the corporation. This fund was to be applied to the payment of the notes of any one of the corporations which might become insolvent, and not leave sufficient to discharge its notes after the sale of its assets. But the State banks having been so grossly mismanaged, and led to so much distress, it was now resolved, by Act, April 18, 1838, to open the business of banking to others besides incorporated banks. These companies and firms were called "Monied Corporations," "Banking Associations," and "Bankers," which were all regulated by very stringent enactments. With regard to the chartered banks, it was enacted, that they should not make dividends except from the surplus profits arising out of their business; pay to the stockholders, or in any way withdraw any part of the capital stock without the consent of the legislature; discount, or receive any note or

other evidence of debt in payment of any instalment actually called in, or with the intent to provide the means of making such a payment; receive or discount any note or other evidence of debt with the intent of enabling any stockholder to withdraw any part of the money paid in by him on his stock; apply any of the corporate funds, except surplus profits, directly or indirectly, to the purchase of their own stock; receive any of their own shares in payment or satisfaction of any debt due to them; or exchange any of their own stock, or obligations, for the stock, or obligations, of any other corporation; to make any loans or discounts exceeding three times the amount of capital actually paid in; to make any loans or discounts to the directors, or upon paper bearing the directors' names, to more than one third of the capital. In the calculation of profits all interest due, but unpaid, was not to be reckoned; all expenses of management were to be deducted; also all interest due or paid on the debts of the company, and all losses sustained; all debts due, upon which no interest has been paid for one year, or debts upon which judgment has been recovered, but remained unsatisfied, for two years. All losses sustained which exceeded the undivided profits, should be subtracted from capital, and no dividend declared until the capital was replaced. All shares given as security for a debt which should not be paid, were to be sold within sixty days after the debt was due and unpaid, and if not sold, they were to be deducted from capital, and no dividend was to be declared until the loss should be made good. Every chartered bank was, on the 1st of January in each year, to send to the comptroller a very minute statement of its affairs, under the penalty of being proceeded against as insolvent, if it delayed doing so for one month. This statement is to show the amount of capital stock paid in or invested according to the charter; the value of the real estate of the company, and how much of it is occupied for the purpose of business; the amount held of its own stock, and whether absolutely or as collateral security; the debts due to it, specifying each kind; the debts due by it, also specifying each kind; the claims against it not acknowledged as debts; the amount for which it is bound as surety, or for which it may become liable by the happening of contingent events; of its notes and bills in circulation, its loans and discounts, and its specie in hand. Every such statement after the first shall also contain the amount of losses charged since the last, and the dividends declared. The comptroller is to tabulate all these particulars in a book, to be open to public inspection, and if he suspects that the figures are inaccurate, or that the corporation is insolvent, he is immediately to report to the legislature. No corporation having banking powers is to issue any note, or bill, for less than one dollar. And no banking company is by itself, or its agents, to buy up directly, or indirectly, any of its obligations for less than the sum then due on the face of them. No officer is to make any loan or advance on any security which he shall know to have been refused by any other officer of the bank. Every one of the company's obligations are to be payable at the banking house of the company. Many minute

regulations are made as to the election of directors, and the management of the safety fund.

462. With respect to unincorporated banks, or "banking associations" and private "bankers," it was enacted that the superintendent of the bank department should cause to be engraved a certain number of notes, like bank notes, of the same denominations as those authorized to be issued by the incorporated banks, and whenever any person, or association of persons, formed for the purpose of banking, should transfer to the superintendent, any portion of public stock, issued or to be issued by the State, such person, or association of persons, should be entitled to receive in return an equal amount of these notes. All such stock to be made equal to State stock at six per cent., and to be taken at its current market value, but not above its par value. But stock of the United States might be held instead of stock of the State. Such persons and associations having received these notes, and having signed them, so as to make them payable on demand at their houses of business, may loan and circulate them. No association may commence banking business until they have deposited with the superintendent securities required by law to the amount of 100,000 dollars, nor any private banker less than 50,000 dollars. Every individual banker, who receives such notes from the superintendent, must declare whether any other person is interested in the securities deposited, and he must also certify the town, city, or village, in which he resides himself. No banking association or private banker may issue or put in circulation any of their notes, except such as are payable on demand and without interest. If any person issuing such notes fail or refuse to pay them upon demand, during usual business hours, in the lawful money of the United States, the holder may cause them to be protested, and the superintendent, on receiving such protest, shall give notice in writing to the makers of the notes to pay them; and if they neglect to do so for fifteen days, the superintendent is to give notice in the State papers that all the notes issued by such persons shall be redeemed out of the securities held by him. All notes or bills, where payment is secured by the deposit of public stock, are to be stamped on their face "Secured by the pledge of public stocks." Instead of public stocks, such banking association, or private banker, may deposit one half the amount in bonds, or mortgages, upon real estate, bearing at least seven per cent. interest, of the State of New York, payable annually, or semi-annually, and in such case the bills and notes are to be stamped "Secured by pledge of public stocks, and real estate." All the securities lodged with the superintendent are to be held exclusively for the redemption of the bills and notes of such person or association put in circulation as money. Any number of persons may associate to establish offices of discount, deposit, and circulation, upon the terms and conditions of the Act, but the aggregate amount of the capital stock of such association must not be less than 100,000 dollars; and they are to certify under their hands and seals the name they intend to use in business; the place where their operations are to be carried on; the amount of their capital stock, and the number of shares into which it is

divided; the names and residences of the shareholders, and the number of shares held by each. Such associations may carry on the business of banking, by discounting bills, notes, and other evidences of debt; receive deposits; buy and sell gold and silver bullion, foreign coins, and bills of exchange; lend money on real security. The shares are to be deemed personal property, and may be transferred: such associations may provide by their articles for an increase of their capital, and the number of the associates, from time to time, as they may think proper. All suits and actions by and against such associations are to be in the name of the president, and all judgments and decrees obtained or rendered against such associations, are to be enforced only against the joint property of the association. No shareholder of any such association shall be liable in his private capacity for any of the debts, or engagements of the company, unless the articles of association signed by him shall declare him to be so. Such association is forbidden to purchase, hold, or convey, real estate, except such as shall be necessary for the transaction of its business, or such as shall be mortgaged to it *bonâ fide*, as security for a loan or a debt due to it, or such as it shall purchase at sales under judgments, decrees, or mortgages held by it. Upon application made by creditors, or shareholders, to the amount of 1,000 dollars, stating facts, verified by affidavit, the supreme court may, in its discretion, order a strict examination to be made in the affairs of the association to ascertain its condition, and the prudence of its management, and the result of such investigation is to be published in such manner as the court may direct.

463. Every banking association and private banker shall make out an annual statement, shewing the amount of certified stock paid in or invested, according to law; the value of the real estate held, specifying what portion of it is occupied for the transaction of business; the shares of stock held by such association, or individual banker, whether absolutely, or as collateral security, specifying each kind and description of stock, and the number and value of the shares of each. The debts due to them, specifying such as are due from moneyed or other corporations, and their names, and amounts, and the amount secured by bond and mortgage, or judgment; the amount which ought be included in the computation of losses, and the total amount then collectable; the amount of debts due by them, specifying such as are payable on demand, such as are due to moneyed, or other corporations, associations, or individual bankers, their names and the amounts due to each. The amount of claims against them not acknowledged as debts. The amount for which they are bound as sureties, or for which they may become liable on the happening of contingent events. The amount of the notes or bills then in circulation, of loans, and discounts, and of specie on hand; the same for the preceding July. The amount of losses charged, whether against capital or profits, since last preceding statement, and of the dividends declared and made during the same period; the amount of mortgages on real estate, and state stocks, together with the description of such stocks deposited as security for the circulating

notes issued, the market value of such stocks, as near as can be ascertained, and the date to which payment of interest has been made upon such mortgages and stocks, and whether the interest has been paid to the association or banker, or passed to their credit in the books of the superintendent. If any association neglected to make out and send this statement, it may be dissolved, and any private bankers be restrained from carrying on business. All banking companies and bankers, except those carrying on business in New York, Albany, Brooklyn, or Troy, must keep an agent in New York, Albany, or Troy, to pay all such of their notes as may be presented for payment, at a rate of discount not exceeding one quarter per cent. No banker is to receive, pay out, give, or offer in payment, as money, to circulate, or attempt to circulate as money, any bill, note, or other evidence of debt, issued, or purporting to be issued by any corporation, association, or individual, situated or residing without the State, and which shall purport to be payable or redeemable at any place, or by any person, association, or corporation within the State. All bankers and banking institutions are forbidden to borrow from each other any notes, bills, &c., for the purpose of putting them into circulation, nor are they to issue any of their notes, &c., at a discount. By a subsequent act, in 1850, it is enacted that if any banking institution which issues any kind of paper credit to circulate as money, shall make default in paying any engagement, the stockholders are to be liable in their private capacities in proportion to their shares.

464. It had been resolved by the New York banks to resume specie payments on the 10th of May, and the convention of bank delegates had endeavoured to induce the Philadelphia banks to agree to do so at the same time. But they, or rather Mr. Biddle, who was the autocrat of the banking interest at Philadelphia, refused, and threw every impediment in the way that he could. This person and his bank were now deep in cotton speculations, which a resumption of cash payments would have disturbed, he, therefore, so far from taking the lead in resuming cash payments, as he had boasted he would, manifested the most vehement hostility to those who did. But the New York banks, notwithstanding, adhered to their resolve, and many of them, as well as those of Boston, commenced paying cash on the 1st of May. The New York and Boston banks, however, were the only ones that did so. Mr. Biddle was repeatedly called upon to resume payment, as he boasted of his perfect ability to do so, but always put it off, on one pretext or another. His party had always maintained that the specie circular of the President, in July, 1836, had been the chief cause of the embarrassments. In July, 1838, this was repealed by an Act of Congress which forbade any difference to be made in receiving payments of the public revenue. Mr. Biddle's swagger now rose higher than ever: he declared that he now saw no difficulty in resuming cash payments, and that he was ready to co-operate with the executive in restoring a sound currency. Nevertheless he made no movement towards it, and always tried to defeat any effort for that purpose. A meeting of the Philadelphia banks took place, and resolved, by a majority, to resume on the

1st of August, but Mr. Biddle's agent voted in the minority, and did everything he could to upset the decision of the majority. A general cry was then raised, that Mr. Biddle's bank was in a state of insolvency, and wholly unable to resume payments. However all delays were cut short by the Governor of Pennsylvania issuing a proclamation, that all banks in the State must resume payment on the 13th of August, under the penalty of forfeiting their charters. But Mr. Biddle's wild speculations in cotton now began to bear their legitimate fruit. From the quantities of cotton known to be held by him, and the prices paid for them, *The Times* of September 29, 1838, calculated that his losses then amounted to £500,000.

465. In his message to Congress in 1838, President Van Buren adopted and continued the policy of his predecessor with regard to a National Bank. "The contrast between the suspension of 1814 and that of 1837, is most striking. The short duration of the latter, the prompt restoration of business, the evident benefits resulting from an adherence by the government to the constitutional standard of value, instead of sanctioning the suspension by the receipt of irredeemable paper, and the advantages derived from the large amount of specie introduced into the country previous to 1837, afford a valuable illustration of the true policy of the government in such a crisis. Nor can the comparison fail to remove the impression that a national bank is necessary in such emergencies. Not only were specie payments resumed without its aid, but exchanges have also been more rapidly restored than when it existed; thereby shewing that private capital, enterprise, and prudence, are fully adequate to those ends. On all these points experience seems to have confirmed the views heretofore submitted to Congress. We have been saved the mortification of seeing the distresses of the community for the third time seized on to fasten upon the country so dangerous an institution; and we may also hope that the business of individuals will hereafter be relieved from the injurious effects of a continued agitation of that disturbing subject. The limited influence of a national bank in averting derangement in the exchanges of the country, or in compelling the resumption of specie payments, is now not less apparent than its tendency to increase inordinate speculations by sudden expansions and contractions; its disposition to create panic and embarrassment for the promotion of its own designs; its interference with politics, and its far greater power for evil than for good, either in regard to the local institution, or to the operations of Government itself. What was in these respects but apprehension, or opinion, when a national bank was first established, now stands confirmed by humiliating experience. The scenes through which we have passed conclusively prove how little our commerce, agriculture, manufactures or finances, require such an institution, and what dangers are attendant on its power—a power, I trust, never to be conferred by the American people upon their government, and still less upon individuals not responsible to them for its unavoidable abuses."

466. Towards the end of 1838, the Bank of Belgium had failed, and the whole of that country

was thrown into confusion by the mismanagement of several monetary companies, who had been speculating in all sorts of things they ought not to have done. These failures deranged the commerce of France, in which a very large number of the shares of these Belgian companies were held. In the beginning of 1839, the Scotch banks, who were the most sagacious in perceiving danger from afar, sold out large quantities of government securities. These circumstances caused a heavy demand for bullion from the Bank of England, which (as usual) was fast asleep, while everyone else saw that danger was approaching. At last, in April, the bank directors could no longer conceal from themselves their impending danger, and made no secret of their uneasiness at their position. They began to make violent efforts to contract their issues to stop the outflow of bullion. At the same time news of a similar character arrived from America. Several failures had taken place among the banks, and a number more were expected in various parts of the Union. They were especially severe in Michigan, where all the joint stock and private bankers failed. A bill was brought into the assembly to make land a legal tender at two-thirds of its appraised value, in the absence of specie and bank paper currency. Immense failures also took place in the other Western States. A demand began upon the banks generally for specie, which were thus obliged to contract their business, and this produced a panic about the end of March. The stock of the banks fell rapidly. The State Bank of Illinois failed, and the domestic exchanges became rapidly disordered. The stock of Mr. Biddle's bank fell rapidly, and his wild operations had raised up against him a strong opposition in Pennsylvania, who wished to annul his charter. In April the banks in Mississippi and Georgia began to fail, most of the Western banks having followed the example of the Bank of the United States, and become traders as well as bankers. Some bank notes were already at 25 discount. The abominable system which the Mississippi banks followed, of buying up vast quantities of cotton on speculation, now began to be felt severely. The quantities accumulated were so great, that it was clear to every one, that their sale would be attended with a frightful loss. In the midst of this panic, Mr. Biddle suddenly resigned the Presidency of the United States Bank, to everybody's astonishment, on the pretence of ill health, but at the same time publishing to the world that it was in a safe and prosperous condition, which nobody believed; but set it down to the inevitable crisis which was rapidly approaching in American banking.

467. Not only were the actual operations of the American banks at this period of the most dangerous description, but there was published at this time a remarkable little monthly periodical, called *The Counterfeit Detector and Bank Note List*, 12½ pages of which, out of 16, were occupied with accounts of the different sorts of counterfeit dollar paper afloat, with lists of the broken and suspended and fraudulent banks. In the list of "counterfeit and altered notes" nearly forty different sorts are enumerated as in circulation, as forgeries of the Notes of the Bank of the United States at Philadelphia, and 140 different sorts are described as being afloat as forgeries of

its different branch notes in various parts of the Union. The total number of kinds of forged notes of other banks known to be in circulation was about 600, so that an immense proportion of the paper currency actually afloat was known to be forged. Moreover, there were a number of fraudulent banks, which in fact had no existence at all, except on the paper in circulation. They were generally made in imitation of the name of some well known institution. Of these imaginary banks, there were fifty whose paper was in circulation. This was technically called "wild cat money."

468. As the summer went on, difficulties thickened round the Bank of the United States, which was under immense obligations on account of her post notes and bonds, which had been poured out in such torrents on the English market. The Bank of England, being in the direct extremity itself, in August, 1839, raised the rate of discount to 6 per cent., which at last ruined the market for these American speculators. The Bank of the United States opened a negotiation in Holland, to raise funds to meet their obligations in England. At length the blow fell. On the 16th September, 1839, the Paris correspondents of the Bank of the United States refused acceptance of its drafts. The sagacity of the *Times*, which had for a long period denounced the bank and its wild mismanagement, and which, indeed, was the first to raise the cry of danger, was fully vindicated. On the 26th, the London agent of the bank made application to the Bank of England for assistance, as their negotiations in Holland had been interrupted by the news of the dishonour of their bills by their Paris correspondents. Assistance to a small amount was granted, on the guarantee of several of the first names in the city, pending the arrival of the next steamer from America, upon which the fate of the bank hung. In the meantime, the struggles of the bank to maintain its credit, were causing the deepest distress throughout the Union. The *New York Evening Post* said, "It is hardly possible to describe the exasperation against the United States Bank of Pennsylvania, which now prevails among the mercantile part of our population. Everybody understands and declares that the operations, of which that bank is the source and centre, are the cause of the present paroxysm of pressure. Everybody sees that it regulates currency and credit, to be sure, but it regulates them with a view to its own profits in the cotton trade, from which it has elbowed every individual merchant. It regulates the currency by throwing out a debased issue of post notes; it regulates credit by bestowing it in large proportions upon its favourite customers, and by compelling the smaller banks, by a run upon their vaults, to contract their discounts, and withhold their usual accommodations. If a storm of execrations could blow down the bank, not a stone of its walls would be left upon another." In order to provide means to meet its engagements, the bank was then selling its post notes at a discount of 1½ per cent. per month, in New York. The price of the stock fell rapidly. It was fully expected that the Bank of England itself would suspend cash payments, and have to issue £1 and £2 notes.

469. The last struggles of this wretched bank were now at hand, after straining all its resources,

and exhausting all its powers to raise money at 24 per cent. interest, and before its European difficulties were known in America, it could only send £120,000 by the steamer of September to London. The *New York Evening Post* said, "LE COMMENCEMENT DE LA FIN. The movements of the Bank of the United States appear certainly exceedingly suspicious, and seem to caution all prudent men too portentously to be disregarded, to 'beware of the flurry.' What is the meaning of the desperate game of post notes, pushed abroad in all quarters, to raise money upon at the ruinous rate of 20 per cent. discount (equal to 25 per cent. interest)? One of the most intelligent and reliable authorities in Wall Street estimates their amount in New York alone, from data within his own knowledge, at upwards of 10,000,000! Another, not less so, remarks that he has reason to know it to be not less than 20,000,000. The excuse put forth that this loss is sustained by other institutions and individuals, they being willing to take them as cash from the bank, and not by the bank itself, is miserably futile; for the question immediately occurs, what sort of parties must these be, in responsibility and strength, who can be willing to pay the bank 6 per cent. for their loans, and then turn round and convert the funds thus received into cash at a further discount of 20 per cent.? Is Mr. Benton right after all, who has for years back entertained a profound conviction that the bank was at bottom insolvent, and that it was merely staggering on from expedient to expedient, to shift its responsibilities and postpone the evil day of payment? Is this the meaning of Mr. Biddle's sudden resignation and departure for Europe, and of the substitution of a man of straw in the throne so long and so ably filled by him? Is this the meaning of the so long withheld monthly publication of its condition, required by its charter? Is this the meaning of the late rapid and unparalleled depreciation of its stock?" The bank was also receiving money at Boston on similar terms. "The Bostonians lately had a requital for their adhesion to the United States Bank in its non-resumption policy. Their money matters had been quiet and they were going on easily, when the Bank of the United States put its sucker into their pond in the shape of 800,000 dollars of post notes. * * * The long continued fictitious operations of the United States Bank to raise money, have at last awakened an anxious inquiry on all hands for the cause. A bank with 35,000,000 of capital giving its note at six months for a single hundred dollars, to be sold in the street at the rate of 18 per cent per annum, discount—realizing vast sums by drawing bills on Europe without funds there at the time of drawing, and yet having no money to loan here, while those bills are running to maturity—so completely without means that it cannot help a customer to 5000 dollars, except by giving him a post note running to maturity at a period much more distant than the maturity of the securities it receives. Did ever a well managed bank behave so?" Another paper, the *Newhaven Columbian Register*, said, "There are thousands of the business men of our country, who are now satisfied, though they formerly thought otherwise, that the United States Bank of Pennsylvania, instead of being the 'regulator,' is the 'great disturber' of the

currency, and of all regular dealings. They were unwilling to believe that an institution whose first duty it was to lend its capital to the prudent dealer at 6 per cent., should have become so entangled in its own speculations, as to be compelled to borrow money at 18 and 21 per cent. But they cannot shut their eyes to the facts that are daily passing before them, and which the sales of post notes, as constantly reported in the New York, Boston, and Philadelphia papers, verify. If the evils of the post note system were confined to the United States Bank, they might be borne with; but the greatest difficulty is, that many of the other banks, all over the country, instead of aiding business people, as they should with their loans, employ their funds in shaving the post note paper of the United States Bank. The mechanic, manufacturer, or merchant, who goes to their counter with a well endorsed note of a few hundred dollars, is told that he cannot be accommodated. The civil cashier does not now as formerly, tell the applicant that the deposits have been removed, or the specie circular issued, and that money can never be plenty until the administration of the general government be overthrown, because such excuses would not at the present day be available with men of any party. The public have closely watched the dividends of these banks, and have discovered that while the people are cramped in their loans, and are told that money never was so scarce, when in short the banks are "doing nothing" over their counters, many of them are making larger dividends than ever they did before. How is this, when according to the rules of old-fashioned banking, the dividends, or profits, should depend on the prosperity of business, and the 6 per cent. loans of those most active in business pursuits? But the career of the United States Bank solves the mystery. It has set an example which has reversed the old system of lending money at 6 per cent. That institution, instead of lending to those who do business, has undertaken to trade and speculate on its own hook. And when it wishes to borrow money to carry its trading operations through, it offers to pay usurious interest, so far beyond the regular 6 per cent. borrower, that other banks are tempted to withdraw their funds from the business community, and make loans at usurious rates to the monopolizer; or, in other words, they buy its post notes at the rate of 18 and 21 per cent. a year, and leave their old 6 per cent. customers to take care of themselves as they can. All our principal cities have thus been interfered with by the "great disturber." The city of Boston has been, till quite lately, exempt, and was getting along in comparative prosperity, but a few days ago, the "great disturber" put its sucker in the midst of them, and all was at once thrown into confusion. It was done in this way. an agent of the United States Bank appeared in Boston with 800,000 dollars of post notes at six, nine, and twelve months to run, which were in the market at the tempting offers of 18 per cent. or more discount. These offers were snapped at by the capitalists and banks, who advanced the cash to the agent; he quickly drew the specie from them, and carried it to the United States banking house at Philadelphia, where it was, no doubt, wanted to meet the pressing engagements of that institution. When the business people of

Boston the next day applied as usual for bank accommodation, they were told there was a dreadful pressure on the money market just then, and they could on no terms be accommodated." Another paper says: "It is only repeating what has become the common declaration on change, and in the counting-houses, to say, that the almost universal opinion of the mercantile community demands some check upon the caprices of the United States Bank. Its despotism has become intolerable." In the midst of this financial distress, the United States Bank contracted to lend the State of Pennsylvania 2,000,000 dollars, on condition of being allowed to issue 5-dollar notes. This expedient, however, was tried and found useless; they were returned on the bank as soon as issued.

470. The final catastrophe came on the 10th October. On that day the United States Bank stopped payment, and this was immediately followed by nearly all the banks in the Southern States, except New Orleans. The notes of the Philadelphia banks at once fell 10 per cent. at New York. The banks in New England vigorously stood their ground, notwithstanding strenuous efforts were made to induce them to stop payment. Thus, after a career of three years and a half, this Bank, which professed to have a capital of 35,000,000 dollars, or £7,000,000, failed twice, after raising an amount of money equal to half its capital, at rates from 6 to 24 per cent.

471. A large portion of the President's message in December was, of course, occupied with the monetary crisis. He dwelt with great length and emphasis on the extravagant abuses of the credit system in America. He congratulated Congress on the success of the government in withdrawing its deposits from the different banks, and keeping them itself, and earnestly pointed out the advantages of a metallic currency, and animadverted upon the low morality of the banks, which now seemed to think that they might adopt a suspension of cash payments whenever it suited their interests. "It now appears that there are other motives than a want of public confidence, under which the banks seek to justify themselves in a refusal to meet their obligations. Scarcely were the government and the country relieved, in a degree from the difficulties occasioned by the general suspension of 1837, when a partial one accruing within 30 months of the former, produced new and serious embarrassments, though it had no palliation in such circumstances as were alleged in justification of that which had previously taken place. There was nothing in the condition of the country to endanger a well-managed banking institution; commerce was deranged by no foreign war; every branch of manufacturing industry was crowned with rich rewards; and the more than usual abundance of our harvests, after supplying our domestic wants, had left our granaries and storehouses filled with a surplus for exportation. It is in the midst of this, that an irredeemable and depreciated paper currency is entailed upon the people, by a large portion of the banks. They are not driven to it by an exhibition of a loss of public confidence, or from a sudden pressure of their depositors, or noteholders; but they excuse themselves by alleging that the current of business, and exchange with foreign

countries, which draw the precious metals from their vaults, would require, in order to meet it, a larger curtailment of their loans to a comparatively small portion of the community, than it will be convenient for them to bear, or the banks to exact. The plea has ceased to be one of necessity. Convenience and policy are now deemed sufficient to warrant these institutions in disregarding their solemn obligations. Such conduct is not merely an injury to individual creditors, but it is a wrong to the whole community, from whose liberality they hold most valuable privileges—whose rights they violate—whose business they derange, and the value of whose property they render unstable and insecure. It must be evident that this new ground for bank suspensions, in reference to which their action is not only disconnected with, but wholly independent of that of the public, gives a character to their suspension, more alarming than any which they exhibited before, and greatly increases the impropriety of relying on the banks in the transactions of the government. * * * * *

New dangers to the banks are also daily disclosed from the extension of that system of extravagant credit, of which they are the pillars. Formerly our foreign commerce was principally founded on an exchange of commodities, including the precious metals, and leaving in its transactions but little foreign debt. Such is not now the case. Aided by the facilities afforded by the banks, mere credit has become too commonly the basis of trade. Many of the banks themselves not content with largely stimulating this system among others, have usurped the business while they impair the stability of the mercantile community; they have become borrowers instead of lenders; they establish their agencies abroad; they deal largely in stocks and merchandize; they encourage the issues of state securities, until the foreign market is glutted with them, and unsatisfied with the legitimate use of their own capital, and the exercise of their lawful privileges, they raise by large loans additional means for every variety of speculation. The disasters attending on this deviation from the former course of business in this country are now shared alike by banks and individuals, to an extent of which there is perhaps no previous example in the annals of our country. So long as the willingness of the foreign lender, and a sufficient export of our productions to meet any necessary partial payments, leave the flow of credit undisturbed, all appears to be prosperous, but as soon as it is checked by any hesitation abroad, or by an inability to make payment there in our production, the evils of the system are disclosed. The paper currency which might serve for domestic purposes, is useless to pay the debt due in Europe. Gold and silver are therefore drawn in exchange for their notes from the banks. To keep up their supply of coin, these institutions are obliged to call upon their own debtors, who pay them principally in their own notes, which are as unavailable to them, as they are to the merchant to meet the foreign demand. The calls of the banks, therefore, to meet such emergencies, of necessity exceed that demand, and produce a corresponding curtailment of their accommodation, and of the currency, at the very moment when the state of trade renders it most inconvenient to be borne.

The intensity of this pressure on the community, is in proportion to the previous liberality of credit, and consequent expansion of the currency; forced sales of property are made at the time when the means of purchasing are most reduced, and the worst calamities to individuals are only at last arrested by an open violation of their obligations by the banks, a refusal to pay specie for their notes, and an imposition upon the community of a fluctuating and depreciated currency. These consequences are inherent in the present system. They are not influenced by the banks being large or small, created by national, or state governments. They are the results of the irresistible laws of trade and credit. In the recent events which have so strikingly illustrated the certain effects of these laws, we have seen the bank of the largest capital of the Union, established under a national charter, and lately strengthened, as we were authoritatively informed, by exchanging that for a state charter, with new and unusual privileges—in condition too, as it said, of entire soundness and great prosperity—not merely unable to resist these effects, but the first to yield to them."

472. The President then showed that these were valid reasons for not entrusting the moneys of the State to these banks, or taking their notes in payment of dues, and such a rule could have no real harshness. "It is, moreover, a principle, than which none is better settled by experience, that the supply of the precious metals will always be found adequate to the uses for which they are required. They abound in countries where no other currency is allowed. In our own States, where small notes are excluded, gold and silver supply their place. When driven to their hiding places by bank suspensions, a little firmness in the community soon restores them in a sufficient quantity for ordinary purposes. Postage and other public dues have been collected in coin, without serious inconvenience, even in a State where a depreciated paper currency has existed for years, and this with the aid of treasury notes for a part of the time, was done without interruption during the suspension of 1837. At the present moment the receipts and disbursements of the government are made in legal currency, in the largest portion of the Union. No one suggests a departure from this rule, and if it can now be successfully carried out, it will surely be attended with even less difficulty when bank notes are again redeemed in specie."

473. The President pointed out that the enforcement of cash payments in all transactions of the government would have a strong effect in moderating the excessive credit operations of ill-managed banks, and strengthening well managed ones. He adverted to the scheme for founding a new national bank, to control the issues of the provincial ones. "I am aware that it has been urged that this control may be best attained, and exerted by means of a national bank. The constitutional objections which I am well known to entertain, would prevent me in any event from proposing or assenting to that remedy; but in addition to this, I cannot, after past experience, bring myself to think that it can any longer be extensively regarded for such a purpose. The history of the late national bank, through all its mutations, shews that it was not so. On the con-

trary, it may, after a careful consideration of the subject, be, I think, safely stated, that at every period of banking excess it took the lead; that in 1817, and 1818, in 1823, in 1831, and 1834, its vast expansions followed by distressing contractions, led to those of the state institutions. It swelled and maddened the tides of the banking system, but seldom allayed, or safely directed them. At a few periods only was a salutary control exercised, but an eager desire on the contrary exhibited for profit in the first place, and if afterwards its measures were severe towards other institutions, it was because its own safety compelled it to adopt them. It did not differ from them in principle or form; its measures emanated from the same spirit of gain; it felt the same temptation to over issues; it suffered from, and was totally unable to avert, these laws of trade, by which it was itself affected equally with them; and at least on one occasion, at an early day, it was saved only by extraordinary exertions from the same fate that attended the weakest institution it professed to supervise. In 1837, it failed, equally with others, in redeeming its notes, though the two years allowed by its charter for that purpose had not expired, a large amount of which remain to the present time outstanding. It is time that, having so vast a capital, and strengthened by the use of all the revenues of the government, it possessed more power, but while it was itself, by this circumstance, freed from the control which all banks require, its paramount object and inducement were left the same—to make the most for its stockholders; not to regulate the currency of the country. Nor has it, as far as we are advised, been found to be greatly otherwise elsewhere. The national character given to the Bank of England has not prevented excessive fluctuation of their currency; and it proved unable to keep off a suspension of specie payments, which lasted for nearly a quarter of a century. And why should we expect it to be otherwise? A national institution, though deriving its charter from a different source than the State banks, is yet constituted upon the same principles; is conducted by men equally exposed to temptation; and is liable to the same disasters; with the additional disadvantage that its magnitude occasions an extent of confusion and distress, which the mismanagement of smaller institutions could not produce. It can scarcely be doubted that the recent suspension of the United States Bank of Pennsylvania—of which the effects are felt not in that State alone, but over half the Union—had its origin in a course of business commenced while it was a national institution, and there is no good reason for supposing that the same consequences would not have followed, had it still derived its powers from the general government. It is in vain, when the influences and impulses are the same, to look for a difference in conduct or results. By such creations we do, therefore, but increase the mass of paper credit and paper currency, without checking their attendant evils and fluctuations. The extent of power and the efficacy of organization which we give, so far from being beneficial, are in practice positively injurious. They strengthen the claim of dependence throughout the Union, subject all parts more certainly to common disaster, and bind every

bank more effectually, in the first instance, to those of our commercial cities, and in the end to a foreign power. In a word, I cannot but believe that, with the full understanding of the operations of our banking system, which experience has produced, public sentiment is not less opposed to the creation of a national bank for purposes connected with currency and commerce, than for those connected with the fiscal operations of the government.

"Yet the commerce and currency of the country are suffering evils from the operations of the State banks, which cannot and ought not to be overlooked. By their means we have been flooded with a depreciated paper, which it was evidently the design of the framers of the constitution to prevent, when they required Congress to 'coin money, and regulate the value of foreign coins,' and when they forbade the States to 'coin money, emit bills of credit, make anything but gold and silver a tender in payment of debts,' or 'pass any law impairing the obligation of contracts.' If they did not guard more explicitly against the present state of things, it was because they could not have anticipated that the few banks then existing were to swell to an extent, which would expel to so great a degree the gold and silver for which they had provided, from the channels of circulation, and fill them with a currency that defeats the object they had in view. The remedy for this must chiefly rest with the States from whose legislation it has sprung. No good that might accrue in a particular case, from the exercise of powers not obviously conferred on the general government, would authorize its interference, or justify a course that might, in the slightest degree, increase, at the expense of the State, the power of the federal authorities; nor do I doubt that the States will apply the remedy. Within the last few years, events have appealed to them too strongly to be disregarded. They have seen that the constitution, though theoretically adhered to, is subverted in practice; that while in the Statute books there is no legal tender but gold and silver, no law impairing the obligation of contracts, yet that, in point of fact, the privileges conferred on banking corporations have made their notes the currency of the country, that the obligations imposed by these notes are violated under the impulses of interest or convenience; and that the number and power of the persons connected with these corporations, or placed under their influence, give them a fearful weight when their interest is in opposition to the spirit of the constitution and laws. To the people it is immaterial whether these results are produced by open violations of the latter, or by the workings of a system of which the result is the same. An inflexible execution even of the existing statutes of most of the states would redress many evils now endured; would effectually show the banks the dangers of mismanagement, which impunity encourages them to repeat; and would teach all corporations the useful lesson that they are the subjects of the law, and the servants of the people. What is still wanting to effect these objects must be sought in additional legislation; or if that be inadequate, in such further constitutional grants or restrictions, as may bring us back into the path from which we have so widely wandered.

"But let it be indelibly engraven on our minds that relief is not to be found in expedients. Indebtedness cannot be lessened by borrowing more money, or by changing the form of the debt. The balance of trade is not to be turned in our favour by creating new demands upon us abroad. Our currency cannot be improved by the creation of new banks, or more issues from those that now exist. Although these devices sometimes appear to give temporary relief, they almost invariably aggravate the evil in the end. It is only by retrenchment and reform, by curtailing public and private expenditure, by paying our debts, and by reforming our banking system, that we are to expect effectual relief, security for the future, and an enduring prosperity."

474. This second suspension of cash payments lasted in the State of Pennsylvania till the 15th of January, 1841, to which it was limited by an Act of that State. The Bank of the United States then attempted to resume payment, but such was the feeling of hostility and distrust towards it, that an immediate run began upon it, and it finally stopped payment on the 4th of February, 1841. Such was the end of this bank, which for many years was one of the great party questions of the Union. The stockholders, in January, 1841, appointed a committee of investigation into its affairs, who made a report in April. This report, though very brief and general, at least for so great an affair, disclosed a course of management as reckless and improvident as any instance of any joint stock bank, that we are aware of. It estimated the loss of capital, as then ascertained, at 17,301,946 dollars, but such estimates of the value of the assets of suspended banks, are very rarely realized, and we believe that on the final liquidation of its affairs, the whole capital was found to be gone. The other banks in Philadelphia followed the example of the United States Bank, and did not resume until the 18th of March, 1842, making their fourth suspension. On the occasion of the suspension in 1839, out of 850 banks in the Union, 343 stopped payment entirely, and 62 partially. But the New England Banks were honourably distinguished, for out of 198 in New York, only four suspended, while in the Southern and Western States, two out of every three stopped.

475. In 1840, the President again alluded to the question of a national debt, and a national bank, in his message. When the final determination to refuse the renewal of the Charter of the Bank of the United States was adopted, it became necessary to provide for the safe keeping of the public monies, which had hitherto been deposited in that bank. An Act was accordingly passed, by which they were distributed among 50 or 60 of the State Banks, which enjoyed the highest reputation. This was done in 1836, but in 1837, the universal suspension took place, which placed the government in extreme embarrassment, for all its monies were locked up in these suspended State banks, and it had nothing to pay to its creditors but their depreciated paper. The government is said to have lost about 1,900,000 dollars by these bankrupt banks. Thenceforward, it determined to keep all the public monies in the Treasury itself. The President congratulated Congress in 1840, upon the entire success

of this plan, notwithstanding the apparently insurmountable difficulties in which the government had been placed by the suspension of the banks, all of these had been overcome, and every claim upon them, at home or abroad, had been promptly met. "Among the reflections arising from the contemplation of these circumstances, one not the least gratifying, is the consciousness that the government had the resolution and the ability to adhere, in every emergency, to the sacred obligations of law; to execute all its contracts, according to the requirements of the constitution; and thus to present, when most needed, a rallying point, by which the business of the whole country might be brought back to a safe and unvarying standard,—a result vitally important, as well to the interests, as to the morals, of the people. There can surely now be no difference of opinion in regard to the incalculable evils that would have arisen, if the government at that critical moment had suffered itself to be deterred from upholding the only true standard of value, either by the pressure of adverse circumstances, or the violence of unmerited denunciation." The President then emphatically warned the nation against the habit of contracting public debts, among the objections to which, he said, was the certain tendency of public securities to concentrate ultimately in the hands of foreign holders. Already, he said, the resources of many of the States, and the future industry of their citizens, have been indefinitely mortgaged to foreigners, to the amount of twelve millions annually, which gave foreigners a right to meddle with the internal affairs of the Union, in a manner calculated to excite serious alarm. The President then expatiated on the evils of the public debts, and said that he had come into office the declared enemy of both a national debt and a national bank. "If a national bank was, as is undeniable, repudiated by the framers of the constitution, as incompatible with the rights of the States, and the liberties of the people; if from the beginning, it has been regarded by a large portion of our citizens as coming in direct collision with that great and vital amendment of the constitution, which declares that all powers not conferred by that instrument on the general government, are reserved to the States and to the people; if it has been viewed by them as the first great step in the march of latitudinous construction, which, unchecked, would render that sacred instrument of as little value as an unwritten constitution, dependent, as it would alone be, for its meaning, on the interested interpretation of a dominant party, and affording no security to the rights of the minority; if such is undeniably the case, what rational grounds could have been conceived for anticipating aught but determined opposition to such an institution at the present day?

"Could a different result have been expected, when the consequences which have flowed from its creation, and particularly from its struggles to perpetuate its existence, had confirmed in so striking a manner the apprehensions of its earliest opponents; when it had been so clearly demonstrated that a concentrated money power, wielding so vast a capital, and combining such incalculable means or influence, may in those peculiar conjunctures, to which this government

is unavoidably exposed, prove an overmatch for the political power of the people themselves; when the true character of its capacity to regulate, according to its will and its interests, and the interests of its favorites, the value and production of the labor and property of every man in this extended country, had been so fully and fearfully developed; when it was notorious that all classes of this great community had, by means of the power and influence it thus possesses, been infected to madness with a spirit of heedless speculation; when it had been seen that, secure in the support of the combination of influences by which it was surrounded, it could violate its charter, and set the laws at defiance with impunity; and when, too, it had become most apparent, that, to believe that such an accumulation of powers can never be granted without the certainty of being abused, was to indulge in a fatal delusion? * * *

"In lieu of a national bank, or a dependence upon banks of any description, for the management of our fiscal affairs, I recommend the adoption of the system which is now in successful operation. That system affords every requisite facility for the transaction of the pecuniary concerns of the government; will, it is confidently anticipated, produce in other respects, many of the benefits which have, from time to time, been expected from the creation of a national bank, but which have never been realized; avoid the manifold evils of such an institution, * * * do away, for ever, all dependence on corporate bodies, either in raising, collecting, safekeeping, or disbursing the public revenues; and place the government equally above the temptation of fostering a dangerous and unconstitutional institution at home, or the necessity of adapting its policy to the views and interests of a still more formidable money power abroad.

"It is, by adopting and carrying out these principles, under circumstances, the most arduous and discouraging, that the attempt has been made, thus far successfully, to demonstrate to the people of the United States that a national bank at all times, and a national debt, except it be incurred at a period when the honor and safety of the nation demand the temporary sacrifice of a policy, which should only be abandoned in such exigencies, are not merely unnecessary, but in direct and deadly hostility to the principles of their government, and to their own permanent welfare.

"The progress made in the development of these positions, appears in the preceding sketch of the past history and present state of the financial concerns of the federal government. The facts there stated fully authorize the assertion that all the purposes, for which government was instituted, have been accomplished during four years of greater pecuniary embarrassment, than were ever before experienced in time of peace, and in the face of opposition, as formidable as any that was ever before arrayed against the policy of an administration; that this has been done when the ordinary revenues of the government were generally decreasing, as well from the operation of the laws, as the condition of the country; without the creation of a permanent public debt, or incurring any liability, other than such as the ordinary resources of the government will speedily discharge, and without the agency of a national bank. * * *

"The first, and assuredly, not the least, important step towards relieving the country from the condition into which it has been plunged by excesses in trade, banking, and credits of all kinds, was to place the business transactions of the government itself on a solid basis; giving and receiving in all cases value for value, and neither countenancing, nor encouraging in others, that delusive system of credit, from which it has been found so difficult to escape, and which has left nothing behind it, but the wrecks that mark its fatal career.

"That the financial affairs of the government are now, and have been during the whole period of the wide spreading difficulties, conducted with a strict and invariable regard to this great fundamental principle, and that by the assumption and maintenance of the stand thus taken on the very threshold of the approaching crisis, more than by any other cause or causes whatever, the community at large has been shielded from the incalculable evils of a general indefinite suspension of specie payments, and a consequent annihilation for the whole period it might have lasted, of a just and invariable standard of value, will, it is believed at this period, scarcely be questioned.

"A steady adherence on the part of the government to the policy which has produced such salutary results, aided by judicious state legislation, and what is not less important, by the industry, enterprise, perseverance, and economy of the American people, cannot fail to raise the whole country, at an early period, to a state of solid and enduring prosperity, not subject to be again overthrown by the suspension of banks, or the explosion of a bloated credit system."

476. The next President, General Harrison, was not so keen an advocate for a metallic currency as his predecessors. He said, in 1841, "connected with this subject is the character of the currency. The idea of making it exclusively metallic, however well intended, appears to me to be fraught with more fatal consequences than any other scheme, having no relation to the personal rights of the citizen, that has ever been devised. If any single scheme could produce the effect of arresting at once that mutation of condition, by which thousands of our most indigent fellow citizens, by their industry and enterprise, are raised to the possession of wealth, that is the one. If there is one measure better calculated than another to produce that state of things so much deprecated by all true republicans, by which the rich are daily adding to their hoards, and the poor sinking deeper into penury, it is an exclusive metallic currency. Or if there is a process by which the character of the country for generosity, and nobleness of feeling, may be destroyed by this great increase and necessary toleration of usury, it is an exclusive metallic currency." In this rhetorical attack on an exclusively metallic currency General Harrison was fighting against a shadow, no one proposed an exclusively metallic currency, but only what common honesty demanded, that the notes of banks should be really and *bona fide*, what they professed to be, convertible into specie at the will of the holder, and that there should be a sufficient metallic basis to the currency to prevent those tremendous fluctuations in it, which spread so much ruin and desolation. General Harrison, however, died

before he could unfold any policy, and was succeeded by Mr. Tyler, who thus delivered his sentiments on the subject. "If paper be used as the chief medium of circulation, and the power be vested in the government of issuing it at pleasure, either in the form of treasury drafts or any other; or if banks be used as the public depositories, with liberty to regard all surplusses from day to day, as so much added to their active capital, prices are exposed to constant fluctuations, and industry to severe suffering. In the one case, political considerations directed to party purposes may control, while excessive cupidity may prevail on the other. The public is thus constantly liable to imposition. Expansions and contractions may follow each other in rapid succession—the one engendering a reckless spirit of adventure and speculation, which embraces states as well as individuals—the other causing a fall in prices, and accomplishing an entire change in the aspect of affairs. Stocks of all sorts rapidly decline, individuals are ruined, and states embarrassed—even in their efforts to meet with punctuality the interest on their debts. Such unhappily is the condition of things now existing in the United States. These effects may be readily traced to the causes above referred to. The public revenues being removed from the then bank of the United States, under an order of a late President, were placed in selected State banks, which actuated by the double motive of conciliating the government, and augmenting their profits to the greatest possible extent, enlarged extravagantly their discounts, thus enabling all existing banks to do the same; large dividends were declared, which stimulating the cupidity of capitalists, caused such a rush to be made to the legislatures of the respective states for similar acts of incorporation, which, by many of the states, under a temporary infatuation, were readily granted; and thus the augmentation of the circulating medium, consisting almost exclusively of paper, produced a most fatal delusion. An illustration derived from the land sales of the period alluded to, will serve best to shew the effect of the whole system. The average sales of the public lands for a period of ten years prior to 1834, had not much exceeded two millions of dollars per annum. In 1834, they attained in round numbers to the amount of six millions of dollars; in the succeeding year of 1835, they reached sixteen millions of dollars; and the next year of 1836, they amounted to the enormous sum of twenty-five millions of dollars—thus crowding into the short space of three years, upwards of seventy-three years' purchase of the public domain. So apparent had become the necessity of arresting this course of things, that the executive department assumed the highly questionable power of discriminating in the funds to be used in payment by different classes of public debtors; a discrimination which was doubtless designed to correct this most ruinous state of things, by the exaction of specie in all payments of the public lands, but which could not at once arrest the tide which had so strongly set in. Hence the demand for specie becoming unceasing, and corresponding prostration rapidly ensued under the necessities created with the banks to curtail their discounts, and thereby to reduce their circulation. I recur to these things with no disposition to censure pre-existing admin-

istrations of the government, but simply in exemplification of the truth of the position which I have assumed. If then any fiscal agent which may be created, shall be placed without due restrictions, either in the hands of the administrators of the government, or those of private individuals, the temptation to abuse will prove to be resistless. Objects of political aggrandizement may seduce the first, and the promptings of a boundless cupidity will assail the last. * * The charter of the bank of the United States expired by its own limitation in 1836, an effort was made to renew it, which received the sanction of the two houses of Congress, but the then President of the United States exercised his veto power, and the measure was defeated. A regard for the truth requires me to say, that the President was fully sustained in the course he had taken by the popular voice. His successor to the chair of state unqualifiedly pronounced his opposition to any new charter of a similar institution; and not only the popular election which brought him into power, but the elections through much of his term, seemed clearly to indicate a concurrence with him in sentiment on the part of the people. After the public monies were withdrawn from the United States Bank, they were placed in deposit with the State banks, and the result of that policy has been before the country. To say nothing as to the question whether the experiment was made under propitious or adverse circumstances, it may safely be asserted that it did receive the unqualified condemnation of most of its early advocates, and it is believed was condemned by the popular sentiment."

477. From this time the public deposits were withdrawn from the custody of any banks whatever, and kept in the treasury, and the consequence has been that while numerous crises of more or less severity have swept the country, the credit of the government, resting on the solid foundation of specie, has remained unimpaired. Having given at so great length the history of the changes in the American system of currency and banking, we need not enter into any detail of its history for the last few years, as no change in its constitution has since taken place. Our object is sufficiently answered, which was to exhibit by a sufficiently full account, drawn exclusively from native sources, the fearful curse which an ill regulated paper currency is to a country. Many persons in this country consider that paper issues are the panacea for all commercial evils, and want of employment of the working classes. But we have seen in the preceding narrative that it was the very issues of paper which brought on such frightful catastrophes in America, to which there is no parallel in this country. We have also seen how inaccurate are the views of a sect in this country, who attribute the derangement of the American currency to the overthrow of the Bank of the United States, as Sir Robert Peel did in 1844. We have seen that in mismanagement, in extravagant paper issues, in fanning vicious speculation, in misappropriating its funds to wild adventures, that Bank was the most guilty culprit of all, and so potent and mischievous was its influence in deranging the commerce of the country, that it fell amid the universal execration of the people. We say

nothing of its political intrigues, of the question of its unconstitutionality or the contrary, which do not concern the subject in an economical view. One thing is certain, that for a considerable time, the Americans have been perfectly determined not to tolerate again the institution of a National Bank. But a great deal remains to be done to put the American currency on a sound footing. It may be well perhaps in the early stages of a country to tolerate a small paper currency, but as it gets richer, it should certainly be replaced by a metallic one. The security of the notes in America is supposed to be maintained by the deposit of public stock, or mortgage on land, besides convertibility into specie. But in the Western States at least, convertibility into specie is a pure farce. It cannot be enforced, and any one attempting to enforce it would run considerable risk of being very roughly handled by the free and enlightened citizens. And the security of the funds and land does not prevent the paper being at a considerable discount. The whole system is manifestly a vicious circle, for paper is issued on the security of public stock and land, and when the stock or land is to be sold, what is it to be redeemed in? Paper. Thus there is nothing but paper to redeem paper. This is Law's theory of money which is fully examined under Law.

The following table shews the progress of banking in the United States :—

NUMBER OF BANKS IN EACH STATE.

	1811.	1816.	1820.	1830.	1858.
Massachusetts...	15	26	28	66	173
Maine	6	14	15	18	70
New Hampshire	8	10	10	18	47
Vermont	"	"	1	10	41
Rhode Island ...	13	16	30	47	23
Connecticut	5	10	8	13	74
New York	8	27	33	37	294
New Jersey	3	11	14	18	47
Pennsylvania ...	4	43	36	33	76
Delaware	"	5	6	6	11
Maryland	6	20	14	18	31
D. of Columbia	4	10	18	9	"
Virginia	1	12	4	4	6,2
N. Carolina	3	3	3	3	28
S. Carolina	4	5	5	5	20
Georgia	1	3	4	9	30
Alabama	"	"	3	2	6
Mississippi	"	"	1	1	2
Louisiana	1	3	4	4	15
Tennessee	1	4	8	1	45
Kentucky	1	2	42	"	37
Ohio	4	21	20	11	49
Indiana	"	"	"	"	40
Illinois	"	"	"	"	45
Missouri	"	"	"	"	10
Michigan	"	"	"	"	4
Wisconsin	"	"	"	"	66
Nebraska	"	"	"	"	6
	88	236	300	328	1,422

A projection for erecting a Bank of Credit in Boston, New England, founded on land security. Boston, 1714.

A discourse concerning the currency of the British Plantations in America, especially with regard to their paper money. Boston, 1740, republished in London, 1751.

Address to the general assembly of Pennsylvania, on the abolition of the Bank Charter. 1785.

Debates and proceedings of the General Assembly of Pennsylvania, on the memorials praying

a repeal or suspension of the law annulling the charter of the Bank. Philadelphia, 1786.

Essays; by Pelatiah Webster. Philadelphia, 1790. Contain an account of the paper money created by the American revolutionary government.

Desultory reflections upon the ruinous consequences of a non-renewal of the Charter of the Bank of the United States. By Carey, 1810.

Nine letters to Dr. Adam Segbert. By Carey, 1810.

Paragraphs on Banks. Philadelphia, 1811.

Concise observations on the propriety of incorporating new banks. Philadelphia, 1812.

Proposition relating to the national circulating medium. December, 1815.

Inquiry into the causes of the present state of the circulating medium. Philadelphia, 1815.

Letter to Mr. Gallatin, by Publicola. New York, 1815.

Letters to the Directors of the Philadelphia Banks. By Mr. Carey, 1816.

Plan of an improved system of the money concerns of the Union. By Dr. Bollman. Philadelphia, 1816.

A friendly monitor. By W. Jones. First President of the United States Bank. Philadelphia, 1819.

Report on the causes and extent of the present general distress. (In Pennsylvania.) January, 1820.

Report on the renewal of the Bank Charters (to the senate of Pennsylvania.) January, 1821.

A peep into the Bank. New York, 1828.

Considerations on the Currency and Banking system of the United States. By Albert Gallatin. Philadelphia, 1831.

Legislative History of the Bank of the United States. 1833.

A short history of paper money and banking in the United States. By W. M. Gouge. Philadelphia, 1833.

On credit, currency, and banking. By Eleazor Lord. New York, 1834.

The history of Banking in America. By J. W. Gilbert. London, 1837.

The credit system of France, Great Britain, and the United States. By H. C. Carey. Philadelphia, 1838.

The theory of money and banks investigated. By George Tucker, Professor of Moral Philosophy in the University of Virginia. Boston, 1839.

Remarks on Currency and Banking; having reference to the present derangement of the circulating medium in the United States. By Nathan Appleton. Boston, 1841.

The Banker's Magazine. Baltimore, 1847.

A treatise on Banks and the Currency. By Condy Raguet. Translated into French by Lemaitre. Paris, 1840.

Banks, banking, and paper currencies. By R. Hildreth. Boston, 1840.

Answers to the questions: What constitutes Currency? What are the causes of unsteadiness of the currency? and what is the remedy? By H. C. Carey. Philadelphia, 1840.

Historical Sketch of the Rise and Progress of Banking in France.

478. Nothing could equal the desolation of France, during the closing years of Louis XIV. That monarch now reaped the bitter consequences of the mis-called glory of the earlier portion of his reign. He had survived all the illustrious men who had adorned the first half of it. He, who had formerly filled all Europe with such terror of his tremendous power, as to drive even the Pope into a league with the heretical Prince of Orange, had now lost all his conquests, his soldiers were beaten, his marshalls disgraced, and the frontiers of his kingdom open on all sides. He, who had carried his armies to the walls of Amsterdam, and devastated so many flourishing provinces with merciless cruelty, was now prepared to make extensive cessions of territory. For many years the finances had been in a state of the utmost disorder. Even in 1692 he had been obliged to send all his plate to the Mint to be coined. In 1706, Chamillart, the Minister of Finance, had paid the creditors of the state in paper. In 1708, Desmarets, nephew of Colbert, was made *Contrôleur Général* of finances. The winter of 1708-9 was of terrible severity, and a dreadful famine ensued. The difficulties of the state were so great, that in May, 1709, the usual resource of bankrupt despotism was adopted—a depreciation of the coinage. A general re-coinage was ordered, and the weight diminished, so that out of every 13½ old, 18 new *louis d'or* were created. Amid the general despair, the king alone, like some weather-beaten oak of the forest, bore gallantly up, and maintained his courage.

479. The king died on the 1st September, 1715, and the terrible state of the finances was the first thing that occupied the attention of the Regent Orléans. The resources of the financiers were exhausted. There were only about 7 or 800,000 livres in the treasury. The amount of the public debt was not ascertained, but it was supposed to amount to about 3 milliards, and a large portion of the securities were at a discount of 80 to 90 per cent. Manufactures were destroyed, commerce was at an end, and vast tracts of country were left uncultivated. Country gentlemen were unable to educate their children. The great bulk of Frenchmen were solely occupied in endeavouring to provide their daily food. The letters of Madame de Maintenon, during her residence at St. Cyr, are filled with details of the distresses of the people, whose pensions and allowances were stopped. Many diplomatic agents remained so long without their salaries, that they could not pay the postage of their letters.

480. The state of affairs was so hopeless, that St. Simon boldly proposed a bankruptcy. The council of finance affected to be shocked at this open avowal, but at every meeting they were occupied with devising schemes to evade the payment of the public debts. At last three methods were adopted. I. A depreciation of the coinage. II. A prosecution of the financiers, or farmers of the revenue, who were alleged to have defrauded the treasury. III. A *visa* or investigation of the titles of the public creditors, to see which might be suppressed or reduced, on the pretended ground of usury.

481. The louis d'or, which passed current for 14 livres, was called in at 16, and immediately re-issued at 20, being an undisguised bankruptcy. Of the securities called in to be verified, 250 millions were brought in, of these 55 millions were fraudulently retained by the office, and only 195 millions returned to the owners, and from the financiers 160 millions were recovered.

482. John Law (Law) had previously, in 1708, been at Paris, and become acquainted with the Duke of Orléans, to whom his social talents recommended him. He then unfolded his financial schemes to the Duke, who recommended him to Desmarests. The minister thought very highly of his knowledge, but for some reason he incurred the displeasure of the government, and was ordered to quit the kingdom.

483. On the death of Louis, Law immediately returned to Paris, and was received with open arms by the Regent. The project of the Royal Bank was renewed. Law addressed several memoirs and letters to the Regent, explaining the nature of Banks and credit, and the benefits they had produced in the states in which they had been adopted. These memoirs and letters contain nothing which is not perfectly sound, and are not tainted with that peculiar theory of money, which we call *Lawism*. The Regent supported the plan with all his power. On the 24th October, 1716, a council extraordinary was held to consider the subject, to which several other eminent persons were invited. It was proposed to erect a Royal Bank, into which all the revenues of the kingdom should be paid, and which should issue notes of the value of 10, 100, and 1000 of the current *écus*. These notes were to be payable to bearer on demand, and might be used in all commercial transactions. But their acceptance was to be purely voluntary. The council however, led by the Duc de Noailles, who was jealous of the Regent, and tried to thwart him in every way, unanimously rejected the plan, and the Regent was obliged to acquiesce.

484. The Regent, however, was determined to persevere, and having privately talked over the Members, a second sitting was held, at which Law attended to give explanations, and a project on a smaller scale was brought forward. Law only asked to be allowed to establish a private banking company, with his own capital, and to carry it on under the eye of the minister. St. Simon was the only opponent, and the letters-patent were granted on the 2nd May, 1716.

485. The capital of the Bank was divided into 1,200 shares of 5,000 livres each. Subscribers were allowed to pay three fourths in public securities, and one fourth in money. Thus, 4,500,000 livres of depreciated public stock were taken out of circulation. This we have already seen (*BANKING IN ENGLAND*, § 82) was exactly the same plan as was adopted in England to support public credit in 1697, when the new subscriptions to the Bank were received partly in its own depreciated notes, and partly in exchequer tallies at a heavy discount.

486. The Bank commenced operations in June, 1716. It was in every respect a similar institution to the Bank of England. It issued its own notes on the deposit of bullion and in the discount of bills of exchange. But what greatly increased its credit both at home and abroad

was, that it undertook to cash its notes in money of a fixed weight and fineness, and not in *livres tournois*, the current money, which varied according to the caprice of the king. It thus insured a uniform standard of payment, and put an end to those atrocious alterations of the currency, which were the terror of all dealings in credit. Moreover foreigners who placed their money in the bank were exempted from the *droit d'aubaine*, by which the property of all foreigners dying in France was confiscated to the crown.

487. The effects of the new Bank, thus insuring a uniform standard of payment, and discounting bills, was marvellous. It was instantaneously felt like magic throughout the whole country. The exchanges immediately turned in favor of France. Foreigners hastened to purchase when they were assured of a fixed currency. Merchants resumed business, manufacturers were at full work, the rate of interest was lowered. The contemporary native writers all bear witness that the recovery of the country from its state of prostration was incredibly quick. The Regent did all he could to favor the new Bank. In October, 1716, all the officers of the revenue were ordered to make their remittances in its notes, and to cash them at sight, so that all the finance offices of the state became in fact branches of the Bank. In two years 50 millions of notes were issued. By this means the Bank had become very much what it had been intended to be at its first projection. Up to this time it was eminently prosperous, and was conducted on the soundest principles, and if it had been let alone, and conducted on the same principles, it would have conferred on France the same benefits as the Bank of England did to this country.

488. But, unfortunately, Law having now attained so firm a position, in despite of the parliament, which hated him as a foreigner and a heretic, and of the bankers and money dealers whose trade he injured, began now to plan those gigantic schemes of speculation, and to carry out his own peculiar views of paper money, which ended with so terrible a catastrophe, and swallowed up this flourishing establishment.

489. Towards the end of the 17th century, some gallant French adventurers had sailed up the St. Lawrence, and discovered those magnificent inland seas, of which it is the outlet. The Indians spoke of a mighty river which ran a southerly course. Marvellous tales of the "Father of waters," reached Quebec, and a merchant named Joliet, and a missionary, Marquette, who had labored among the Indians for years, were fired with zeal to discover the mighty stream, and win fresh triumphs for the Cross. On the 10th June, 1673, these two men with five companions, to the astonishment of the Indians, who sought to dissuade them from the incredible task, struck across the country, and embarked on the Wisconsin. A voyage of seven days launched them on the Great River, which had never been seen by a European eye but once, 140 years before. The travellers descended to the village of Arkansia, a little below the junction of the Arkansas, took possession of the country in the name of France, and returned to Quebec to publish these marvels.

490. The good Marquette slept by the stream, which bears his name, the lone European

among the flock he had won to the Cross. But the torch of discovery was taken up by Cavelier de la Salle, a jesuit trader, who lived on Lake Ontario, and received a large grant of land, upon which Kingston, then called Fort Frontenac, now stands. Joliet spread the news of the new found regions as he passed, and La Salle, who was filled with enthusiasm for discovery, by reading the voyages of Columbus and De Soto, immediately conceived the idea of seizing and colonizing the country. He hastened to France, and the design suited the magnificent ideas of Colbert, who granted him a monopoly of the trade in buffalo skins, and empowered him to explore the Great River. After innumerable adventures and hardships, La Salle and his party, in 1682, navigated the river in its whole course from the falls to the sea. He took possession of this enormous tract, in the name of France, and gave it the name of Louisiana.

491. When La Salle returned to France, Colbert was dead, but his son adopted his plans. In 1684, the first colonists were sent out to take possession of the country. But their course was one series of disasters, chiefly owing to internal dissensions. They missed the mouth of the river, and landed in Texas, where the first settlement was made. After numerous misfortunes and hardships, La Salle set out, with a few companions, to make his way to Canada, but on the way some of his party mutinied, and shot him. After this the colony languished for many years. In 1712 there were but twenty-eight French families in it. In that year Louis XIV. conferred an exclusive monopoly of the trade of that vast region on Anthony Crozat, an eminent French merchant. In a short time, speculation began to be directed to the new territory, by the report of immense mines of gold and silver. But the exclusive power of Crozat gave great offence to his countrymen, who thwarted him in every way, and in 1717 he was induced to abandon his charter. At this time the French inhabitants were about 700.

492. Law immediately saw that his great opportunity was come, and that now was the time to try his currency theories on a grand scale. As Crozat was unable to keep possession of his grant, Law determined to succeed him. In August, 1717, the Western Company was erected by letters patent. The king assigned over to it, in full property, all the lands discovered, and to be discovered, in Louisiana, with sovereign rights, for 25 years. All its forts, ammunition, money, &c., as well as the beaver trade with Canada, were included in the gift.

493. The capital of the Company was fixed at 200,000 shares, of 500 livres each, which might be paid in any species of public security. This operation was similar to the foundation of the Bank of England, and Law's own Bank. One hundred millions of depreciated public stock were thus absorbed, and the creditors of the state became a vast corporation, highly favoured by it. The interest of the capital stock was fixed at 4 per cent., and was punctually paid at Law's Bank. The public securities, which were at 75 per cent. discount, immediately rose to par, and public credit was greatly benefited.

494. As far as the operation had gone, this was exactly what had been done to restore public

credit in England, in 1697, and was somewhat similar to the Bank of St. George, at Genoa, which was an association of the creditors of the state, to whom the Island of Corsica was made over in full sovereignty, as a security for their debts. And, as far as we have gone, there was nothing objectionable in the constitution of the Western Company, and if it had been prudently managed, it might, in process of time, have attained as great fame and power as our own East India Company.

495. Lord John Russell, (*History of Europe from the Peace of Utrecht, Vol. II., p. 206*), and an able French economist, M. Levasseur, in describing this operation, (*Recherches historiques sur le système de Law, p. 64*.) have found considerable fault with the mode of forming the capital of the Company. M. Levasseur maintains that it was fictitious, and that as the public securities were at a discount of 75 per cent., the real capital was only 25 millions. But his argument appears to us to be incorrect. The reason why these securities were at so heavy a discount was, that the interest was so irregularly paid. As soon as the interest was punctually paid, the value of the stock naturally rose to par,—and it was justly rated at its par value. It was the precise plan adopted in increasing the capital of the Bank of England in 1697, and no one ever impugned the operation.

496. On the 28th August, 1717, the Regent sent the edict for creating the Western Company to be registered by the Parliament, along with some others. That body declined to consider the subject until the Regent should have given in a full and detailed account of the finances of the kingdom. The Duc de Noailles, who had always hated Law, and thrown every obstacle in his way, actively opposed him. The Chancellor D'Aguesseau sided with Noailles. On the 28th January, 1718, the Chancellor was dismissed from his office, and ordered to exile himself to his country seat. The Duke hastened to resign, and both were succeeded by Argenson.

497. The Regent was mightily offended at the opposition of the Parliament, and on the 28th May, 1718, a decree for depreciating the coinage, by raising the marc of silver from 40 to 60 livres, was passed by the Council, but not sent to the Parliament for registration. On the 2nd June, all Paris was confounded by seeing the decree placarded on the walls, without the Parliament having heard a word about it. A most furious contest immediately began between the Regent and the Parliament, which at one time almost threatened a civil war. The Parliament denied that the edict had the force of law until registered by them. The Regent replied with unanswerable logic, that in an absolute monarchy the sovereign was the sole source of law, and no inferior body, who derived their authority from his will, could participate in it. He shewed by precedents, that sending such edicts to the Parliament was merely a convenient way of making them known to the public, and was not necessary to give them legal force. The Parliament, thus foiled in argument, determined to revenge themselves on Law, as the supposed author of the edict.

498. On the 12th of August, it published a decree attacking Law's Banking Company. It

ordered that the operations of the Bank should be confined to those specified in the letters-patent of the 2nd and 20th May, 1716, constituting it, and forbade it, or any of its directors, officers, or servants, directly or indirectly, to retain possession of any of the public moneys, or to make use of them in its business, under heavy penalties. That all receivers of the public moneys should keep them in their own custody, and should be personally responsible for them. All foreigners, even though naturalized, were forbidden to interfere, directly or indirectly, in the management of the finances.

499. For several days the Parliament did not dare to publish this decree, but on the 18th of August, its officers read it in the presence of the people, and copies were sent to the proper magistrates. The Council was equally energetic. It quashed the decree of the 12th of August as treasonable, and declared that in future the Parliament must make any objection to a decree within a week of its presentation, and after that time it should be held as registered.

500. The Parliament was prepared to adopt the most violent measures. It proposed to arrest Law by its officers, shut the gates of the court, hang him, and then let in the people to see his corpse. Law, warned of his danger, took refuge at the Palais Royal. Argenson was not a man to be cowed by the Parliament, and a bed of justice was immediately resolved on. At six in the morning, of the 26th of August, the Parliament was ordered to attend at the Tuileries at 10 o'clock. Every preparation had been made for the *coup d'état*, and to render resistance hopeless. Paris was strongly occupied by troops. St. Simon (*Vol. XVII., chaps. 1—9, edit. 1829*) has given the details of this great event with great fullness. The Regent gained a complete triumph. The Parliament was ordered to register the decree of the 21st August, and reminded that its duty was to render justice between man and man, and not to meddle with financial affairs. It was ordered not to delay the registration of any edict more than eight days, after that it was to be held as registered. The Parliament did not dare to disobey, the edicts were registered, and its friends otherwise humiliated.

501. The Regent had now completely conquered all opposition, and determined to carry out the plans of Law on a grand scale. On the 4th of December, 1718, a secret council was held, to which only the Duc d'Antin, the Duc de Bourbon, and Argenson were summoned, to pass an edict, prepared by Law, to carry out the "*SYSTEM*," to be presented to the Parliament. Argenson was aghast at the daring magnitude of the scheme, Antin was only a timid courtier, and Bourbon was actuated by the hope of profit. The determination of the Regent was successful, and on the following day the edict was sent to the Parliament to be registered. It was rejected by a majority of 84 to 23. Law was detested as a foreigner and a Protestant. The Parliament was alarmed at the magnitude of the scheme, and protested against the degradation of the king into a banker and merchant. But all resistance was useless: on the 12th of December, the decree was held as registered, and had the force of law.

502. By this decree the Banking Company of Law was erected into a Royal Bank. The

original capital was repaid to the shareholders, and 1,200 shares in the Western Company, which it had purchased, were held as security for its notes. These were declared to be no longer payable in a fixed standard, as heretofore, but in the current coin of the day, which was always liable to be altered at the arbitrary will of the government. From the 1st of January, 1719, in Paris, and from the 1st of March in the provinces, silver was forbidden to be used in all payments above 600 livres, which were only to be made in gold, or bank notes. As there was scarcely any gold in the kingdom, this practically made bank notes the only legal tender for such sums. Five branches were established, at Lyons, La Rochelle, Tours, Orléans and Amiens.

503. In August, 1718, the first party of colonists, 800 in number, in three vessels, arrived safely at their destination, and the City of New Orléans was founded on an advantageous site, which had been selected in anticipation of their arrival, as the capital of the new empire. But the shares of the Company had fallen to a heavy discount at home. They were only at 300 livres in the market, and the enterprise was languishing. Law saw that it was necessary to adopt some financial operation to raise their value. He bought up two hundred at par, to be paid in six months, and he offered to forfeit 40,000 livres, if he failed in his engagement. This gave the public more confidence, persuaded that the author of the scheme would not risk so much of his own means in it without solid grounds, they began to buy them up, and they soon rose to par.

504. The government and possession of such a gigantic territory, as Louisiana then was, would have been sufficient to have satisfied the ambition and talents of most men, but this was but a small part of Law's audacious scheme, which was nothing less than to absorb the whole trade and finances of the country. He began by buying up and absorbing every rival company that stood in his way, and for each absorption new shares were created. In December, 1718, he acquired the monopoly of the Atlantic trade, and bought up for 1,600,000 livres, the privileges and stock and materials of all sorts, including eleven well equipped vessels of the Company of Senegal. He also bought up the monopoly for nine years of the manufacture and sale of tobacco, for an annual rent of 4,020,000 livres. It had previously yielded only two millions. The state thus gained two millions, and was, in fact, released from the payment of the interest on the capital of the Company.

505. The company began now rapidly to push on its operations. In May, 1719, it had 3,577,000 livres in its coffers, a fleet of 21 vessels, and an immense quantity of merchandize. In the beginning of 1719, ten vessels were sent out with 700 soldiers, and 500 colonists, and great quantities of stores of all sorts. The colonists who had preceded them had satisfied themselves of the inexhaustible resources of these untrodden regions.

506. With one or two insignificant exceptions, the whole ocean commerce of France was now given over to the company, and that of the Mediterranean was soon added to it. In July, 1719, it absorbed the African Company, and on this occasion 50,000 new shares were created,

which were payable in bank notes, or gold, or silver.

507. What a position for this Scotch adventurer! A fugitive from his own country, and dismissed from several of the Courts of Europe, he had now vanquished the Parliament, the highest princes of the blood, and the chancellor D'Aguesseau. He was in absolute possession of a vast territory, and all the maritime commerce of France, which had no communication with foreign countries, except through the intervention of his Company. He now determined to bring all the resources of stock-jobbing into play, to force up the value of the shares. The 50,000 new ones were issued at a premium of 10 per cent. This at once netted a profit of 2,500,000 for the company. Two months after, the original shares were at 1,000 livres. Speculation now fairly set in, and such crowds rushed to buy, that Law made an edict on the 30th June, that each purchaser of a new share, must possess four old ones. The original shares were called *mères*, and the new ones *filles*. To find the means of purchasing these shares, the Bank created, by two ordinances, of the 10th June, and the 20th July, notes to the amount of 290,000,000 livres, and it then had 400 millions in circulation, and on the same day, the privilege of coining money for nine years was ceded to the Company.

508. On the 27th July, 50,000 shares of 500 livres were created, and issued at 1,000, to pay for the coinage monopoly, for which Law had agreed to pay 50 millions, in 15 equal monthly payments. No one could obtain one of these new shares without presenting *four mères* and *one fille*, and they were called *petites filles*. Law still further stimulated jobbing, by promising two annual dividends, of 6 per cent. each. On the 27th August, the company obtained a grant to farm all the indirect taxes of France, at an annual rent of 52 millions, and on the 27th September, the greater portion of the remaining taxes, too numerous to mention. It is only justice to say that immense improvements were effected in their collection. Hosts of petty tyrants were swept away, and all taxes were paid direct to the Company, to the great relief of the taxpayers. Law further made great efforts of the most enlightened nature, to diminish the impediments to commerce, to improve communications, and to overthrow the system which had been reared with so much unhappy industry by Colbert. The Company voluntarily abandoned the monopoly of the sale of tobacco, and declared the trade free, but subject to a moderate duty.

509. Law now undertook a great financial operation, no less than to pay off the remainder of the national creditors. For this purpose, he undertook to advance to the state 1,500 millions, for which he was to receive three per cent. interest, which would relieve the treasury to the amount of 15 millions a-year. This was done by the creation of new shares. On the 13th Sept. 1719, 100,000 new shares were created of 500 livres, but so strong was the tide of speculation, that they were issued at the price of 5,000 livres, but the buyers might pay in ten equal payments of 500 livres. Thus, one third of the payment was provided for at a single stroke. The facility of paying by instalments created a fever of speculation. People rushed in to buy, with the

hope of selling again at a profit. We must refrain here from giving the amusing anecdotes to be found in all writers on this crisis, and some of which are given under LAW, as we are dealing here only with financial questions. The new shares rose, in a few days, to 8,000 livres. By decrees of the 22nd and 25th September, payment might be made in Government securities, or bank notes.

510. The success of this issue was so great, that on the 28th of the same month a fresh creation of the same amount, and on the same terms, was made. On the 2nd October, a third issue of the same amount completed the 1,500 millions, promised to the state, and Law was now so independent of the authorities, that, on the 4th, a supplementary issue of 24,000 shares was created, without even the formality of a decree. As the time for paying the instalments drew near, the price of the shares began to waver, as most persons had bought them with neither the intention nor the means of paying for them, but only for speculation. As the consequences of a decline might have been fatal, a decree of the 20th Oct. ordered, that the nine last payments, which should have been made monthly, should be made at three intervals, of three months each. The purchasers had thus two more months to speculate with them, and the price continued to rise, and soon reached 10,000 livres. In less than three years the paper obligations of Law amounted to ten milliards, or about £400,000,000 of nominal value. Of these, 6,338 millions were shares of different sorts, and the remainder bank notes.

511. Speculation was at its height during the last months of 1719; in November and December the shares reached the price of 10,000 livres. As usual, under such circumstances, a number of persons began to see that the delusion could not be kept up much longer, and began to realise, and carry away the proceeds out of the country, in specie and jewels. The prices of merchandize and the necessaries of life rose immensely. Coffee rose from 50 sous to 18 livres the pound; wax candles from 32 sous to nine livres; cloth rose to 25 livres the ell; velvet to 42. A hackney coach cost 40 livres the day; silk stockings 40 livres the pair, and everything else in proportion. On the 16th January, 1720, the Parliament undertook the impossible task of attempting to lower the prices, and diminish the scarcity of articles of prime necessity. Its efforts, of course, were useless, and it soon gave them up. The excessive dearth of food and necessaries fell with great severity on clerks, and small annuitants, and workmen, who received no increase of wages proportionate to the rise of prices, and who were paid in bank notes. Shopkeepers, however, and all traders, soon made a very sensible difference between payments in cash, and payments in paper.

512. Law now felt that the whole edifice of this bloated credit was tottering, and the most violent measures were resorted to to sustain the value of the paper, just as always has been done in similar circumstances. The extraordinary creations of bank notes fully explain this. While Law's private bank existed, it only issued 61 millions of notes in eighteen months, and it had 32 millions of specie in deposit. But when the bank became the Royal Bank, and Law's theory

of money was fully carried out, the following creations were made by Royal ordinance, in one year, 1719 :—

On the 5th January	18,000,000 liv.
11th February	20,000,000
1st April	21,000,000
10th June	50,000,000
25th July	240,000,000
12th September	120,000,000
24th October	120,000,000
29th December	860,000,000
	<hr/>
	949,000,000 liv.
Notes of Law's Bank	61,000,000
Amount of forged notes supposed to be in circulation	50,000,000
	<hr/>
	1,060,000,000 liv.

This enormous issue created so much alarm that it was publicly announced that no more should be issued on any pretence. They were already at a heavy discount;—at Lille, at 18 per cent.; in Burgundy and Champagne, they were utterly refused. People preferred to make no sales at all, rather than take them. In February, 1720, there was almost an émeute in the market of Poissy. The butchers refused to receive the notes in payment of meat, and Paris was in danger of being starved, if specie had not been sent to them.

513. Law seeing the danger of the credit of the notes being entirely ruined, adopted the most violent measures to throw discredit on specie, and drive it out of circulation. The shares of the Company could only be paid for in public securities and bank notes, specie was altogether refused. On the 1st of December, 1719, the bank was forbidden to buy any more specie with its notes. The Company was ordered to receive nothing but notes in payment of taxes, bank notes were made the only legal tender, creditors were ordered to disregard all offers of payment in money. In commercial transactions no payments of greater amount than 10 livres in silver, and 300 in gold, were allowed. For lower amounts, the Company only received specie at a discount of 5 per cent. Bills of exchange could not be paid in money. The bank relaxed its rule a little, and agreed to sell its notes for gold at a premium of 5 per cent. On the 28th January, 1720, another proclamation made notes legal tender throughout the kingdom, and on the 28th April, all who paid their taxes in notes were allowed a discount of 10 per cent.

514. In issuing this immense quantity of paper, Law was only following out the principles of his system, and indeed it is only just to say, following out to its legitimate conclusion, the prevailing theory of money of his day, and one which is even now very extensively prevalent. But when he saw it producing the fruits of a false theory, he utterly broke through all his own principles. In his *Mémoires sur les Banques*, and his letters to the regent, he had strenuously maintained the doctrine that the king should never tamper with the coinage, or alter it in weight, fineness, and denomination. In his treatise, *Money and Trade considered*, which is a full exposition of his theory, he does not hesitate to stigmatise all tampering with the coinage, as fraudulent and delusive, and the special object of his plan was to create a paper currency which

should maintain an equality in value with specie. But henceforth he followed the opposite course, instead of making the paper correspond to the value of the specie, he tried to make specie conform to the value of the paper, exactly what so many persons maintain ought to have been done in England in 1816, when there was a difference of 25 per cent. between bank paper and gold, but which he had always reprobated. Between September, 1719, and December, 1720, there were twenty-eight alterations of the value of gold, and thirty-five of that of silver. In May, 1719, the louis d'or had been fixed at 36 livres, on the 25th July, it was reduced to 34, on the 23rd September, to 33, and on the 3rd December, to 32, on the 1st January, 1720, to 31, and on the 1st February, to 30. But the law that bad money drives out good had begun to operate, at the first reductions every one had rushed to deposit his money at the bank, and get notes, but at these successive reductions, which seemed to have no end, they hastened to export their money, rather than lose five livres on every louis. On the 22nd January, 1720, they were restored to their former value, and absolute freedom of export was allowed, without a passport. But it was only a trick; no sooner had money again come into circulation, than on the 28th, it was again lowered to 34 livres. But for three days gold was to be received at 900 livres the marc, at the Mint. Multitudes of persons hastened to disembarass themselves of money which was such a source of annoyance to them. The bank was filled, and money was again proscribed, and it was forbidden to carry it out of any town where there was a mint. People were not even allowed to keep their money in quiet. Large quantities had not been brought in under the edict of May, 1718. In December, 1719, the Company was authorised to make domiciliary visits, and seize all the decreed money they could find, and on the 28th January, 1720, this was extended even to religious communities, and other privileged places. Soon afterwards, diamonds, precious stones, and even gold ornaments were prohibited. On the 27th February all persons whatever, as well as bodies corporate, were forbidden to have more than 500 livres in specie, under a penalty of 10,000 livres. Nor were the Company slow to put these decrees in force, several very extensive seizures took place. No place escaped search. The brothers Paris, conspicuous antagonists of Law, were detected exporting seven millions, which was seized, as well as an equal sum found on searching their house, and confiscated to the Company. Universal distrust followed, servants betrayed their masters, neighbours informed against their neighbours, and even kindred and friends denounced each other. The royal dukes made enormous sums out of Law, and the Prince of Conti, when some slight check was at last placed upon his rapacity, was the first to attack the bank. He collected all his notes and demanded 14 millions in specie for them, which he carried away in three waggons. The Duc de Bourbon drew out 25 millions.

515. On the 30th December, 1719, when the system was at the height of its prosperity, a General Meeting of the Company was held. The Regent presided, the royal dukes sat in the crowd among all sorts of people, who had

speculated luckily; the directors were 30 in number, and comprised nearly all the former farmers-general of the revenue, but Law was the real manager of the whole concern, and guided the whole assemblage at his will. He had now great cause for alarm. The extravagant height to which the shares had been raised, could not be maintained on the dividend of 12 per cent. promised to the original shareholders, and if no more could be promised, it was clear that the shares would soon go down again, and might possibly overturn the whole scheme. The real value of the shares of course ought to depend upon the dividend earned; Law determined to accommodate the dividend to the price of the shares. Of 624,000 shares which had been created, the king held 100,000, and the Company the same number, so that only 424,000 were in the hands of the public, for which dividends must be provided. But the engagements the Company had undertaken left nothing to provide an adequate dividend. The balance sheet put before the Company showed profits, which only existed in imagination, or at least in the hopes of the future. The shareholders were not too curious in investigating the figures put before them, which shewed a profit of 91 millions. And in future it was determined that the Company should pay a dividend of 40 per cent., on the original price of the shares, or 200 livres per share. That day speculation carried the shares up from 11,000 to 15,180 livres, and on the 5th of January, 1720, to 18,000 livres.

516. If it had not been for these fatal theories of paper money, and this extravagant speculation, the Company had every prospect of success. It had surmounted its first difficulties of colonization; at the end of 1719, thirty vessels sailed for Louisiana, and the coast of Africa. Rich consignments were sent to the East Indies, and to Spain. In the beginning of 1720, a fleet arrived, freighted with merchandize to the value of 12 millions. Belle Isle in France was ceded to it. Lorient, which had been given by Colbert to the former Company of the Indies, was nothing but an obscure village when it passed into Law's hands, and it was made the head quarters of the Company's trade. Immense magazines and workshops immediately started up, and in 1730, it already numbered more than 14,000 inhabitants. In Louisiana everything promised well. Colonists were attracted by liberal promises of land. In February, 1720, 800 families engaged to go out, and people 40 villages; each family was to receive 280 arpents as a free gift, and was exempted from all taxation for three years, and after that the taxes were never to exceed 10 per cent. of the products of the soil. On these terms numbers of persons started for the colony. Law bargained with the Elector Palatine, and other German princes to furnish 12,000 emigrants, and of these 4,000 were actually sent at his expense. The Company conveyed them free to the country, and provided boats to take them to their allotments, and gave them food and seed for the first year. Law took a large concession in his own name, and the persons who presented themselves as emigrants were so numerous, that the Company's vessels were not sufficient to carry them.

517. These measures promised success, and if they had been patiently carried out, there was

every prospect that in time Louisiana might have been raised to a great and wealthy country, which would have brought in boundless revenues to its proprietors. But, unfortunately, from the fatal effects of speculation, the price of the shares had been forced up so high, that immediate profits were required, and to accelerate these, very violent plans were adopted. Not content with the natural tide of emigration, every means was adopted to force it. The country was parcelled out into Duchies and Marquisates, and they were attempted to be peopled with despotic violence. The police of Paris made a general *razzia* on what they were pleased to term the vagabonds of the city, but among them numbers of respectable and well-to-do shopkeepers were seized. All prisoners were sentenced to be transported to Louisiana, in lieu of all other punishments, the houses of correction were emptied, and even ecclesiastical offences were visited with the same penalty. No proper provision had been made either in Paris, or on the journey, or in the colony for such multitudes of people. They were kept in barns, without food, and died in scores, and they filled the air with their cries, which raised the public indignation to a high pitch. To excite the public, the most fabulous reports were spread of the marvellously rich mines of gold and silver which had been discovered, ingots of bullion were carried about the streets, which it was pretended came from there. Pictures were published, showing the arrival of the colonists in their earthly Paradise, and the savages running to submit themselves to their new masters. The background was filled in with mountains of gold, silver, copper, lead, and quick-silver. The savages, who knew nothing of the value of these riches, were represented as bartering large lumps of gold for European trinkets. Others were shown demanding baptism, with enthusiasm. The solid result of all this was the foundation of the great city of New Orleans.

518. The extravagant rise in the price of the shares greatly disquieted Law. He had only wished to set the public really in motion to carry out his schemes; when that was done, it was greatly against his interest to carry speculation further, which could only end in a convulsion. He now became alarmed. A second general meeting of the company was called on the 22nd February, 1720. The bank and the company were consolidated. The quantity of notes could not be increased without the consent of both parties, confirmed by a royal decree. The extravagance of the Court was curbed. The king could not draw on the bank for more than he had in it,—and the cashiers of the bank were forbidden to honor his drafts to a greater extent. In order to support the credit of the notes, and to diminish their quantity, the company ceased to take five per cent. for notes in exchange for specie. Notes were declared the only legal tender above 100 livres. Those of 10 livres were to be called in in two months, and paid; and among other things, all the shops for trafficking in the shares were shut up. But one part of these resolutions was immediately abandoned, although the company had determined to stop the advances to the king, and to request him to deposit his shares with them, they agreed to

advance him five millions a month, which could only be done by creating new notes.

519. The good effect, consequently, of the resolutions curbing future creations, was but transient. It was seen that the promises would not be kept, and the shares immediately began to go down. In December, 1719, it was promised that no more should be made, and yet in February 1720, 200 millions were created on pretence of replacing some of these already out. They were in a great part issued before the old ones were called in. Nor were the promises of the 22nd February better kept,—new shares were sold, and all the acts of violence were repeated. But nothing could avert the inevitable doom of the system. Law had promised a dividend of 200 livres on 424,000 shares—but where was it to come from? There were no sufficient profits. This would give the final blow to the company, whose shares were already going down, as well as to the bank. There was but one method of staving off ruin—new decrees—new tamperings with the coinage. The price of the shares as fixed at 9,000 livres, and bank notes and shares were declared to be mutually convertible at that rate. The treasurer of the bank was ordered to demand payment of all commercial bills at maturity. This would bring in 174 millions. Bank notes still were allowed a difference of four sous in the livre, and a discount of 10 per cent., as compared with specie, in the payment of taxes. The marc of silver was raised to 80 livres,—the marc of gold to 1,200, écus to eight livres, and the louis d'or to 48.

520. By the measures taken, the shares of the bank were reduced by one-third, and it was hoped that fixing the price would stop the fall, but this did not help the bank, which had one milliard (£40,000,000) in circulation, and no means of withdrawing it, or even of stopping its issues. The shares were now selling at 8,000 livres,—Law offered 9,000 for them; numbers, of course, rushed to sell them at that price, and that affected the credit both of the shares and the notes. A severe blow was given to the system by a decree of the 11th March, 1720. It said that in order to lower the price of necessities, and facilitate commerce, it was expedient to diminish the value of specie, and abolish the use of gold. The louis d'or was ordered to pass for 42 livres, during March, 36 during April, and to be no longer money after the 1st May. The écus were to be proportionably reduced, and were all to be brought into the Mint by the end of 1720. Nothing but paper was to be used, and the ten livre notes, which had been suppressed in February, were continued in circulation.

521. These decrees created a perfect panic. Before the end of March, 44,696,190 livres in silver were paid into the bank, and in a short time none but silversmiths and jewellers were allowed to keep any gold or silver. But they aroused a resistance of so threatening a nature, that they were obliged to be modified, and at the end of May, louis d'or were allowed to circulate at 49 livres 10 sous, and écus at eight livres five sous. In June, new alterations were made, but by that time the bank note was so thoroughly distrusted that people began to prefer specie, with all its inconveniences, to the paper.

522. Some time before this, Law had been

made Contrôleur-Général of Finance. He, of course, had been the moving power of the whole thing all along,—and, in fact, he had been little less than Prime Minister of France. But his religion (such as it was) prevented him being made an ostensible minister. To enter the ministry, it was necessary to be converted to the Catholic faith. A fitting instrument was soon found. The Abbé Tencin, who, even in that age, was notorious for profligacy, was selected to have the honor of the conversion. The Abbé and his neophyte were shut up alone. The lucubrations of these worthies on the Christian verities never transpired. But they were doubtless of surpassing depth, for, in a very few sittings, Law was converted to the Catholic faith, and the result to the Abbé was an immense donation of shares. One little speck shortly after dimmed the reputation of the pious Abbé. A few weeks after this great argumentative triumph, he was fully convicted, in open court, of the most wilful and flagitious perjury. This little accident somewhat disconcerted his pupil; but he was consoled by the appointment of Contrôleur-Général of Finance—equivalent to that of Prime Minister of France.

523. It had been ordered that no more notes should be created, but as every one might sell their shares at a fixed price, they could not be stopped. The resolutions to forbear new issues were soon disregarded, and the following new creations took place:—

On the 26th March, 1720	800,000,000
5th April	369,000,000
19th April	438,000,000
17th May	862,000,000

By this time there were considerably more than 2½ milliards (£100,000,000) in circulation. As soon as Law found that the shares were falling, he endeavoured to put down jobbing in them. The offices in the Rue Quincampoix were shut up. But, of course, private jobbing could not be stopped; new decrees forbade it on pain of a fine of 3,000 francs, and imprisonment. He also tried to put down other investments, or at least, to make them less profitable than the dividends of the company. By an edict of March, the rate of interest was fixed at 2½. The Parliament, which had been silent ever since its humiliation in August, 1718, summoned up courage to remonstrate with the Regent. On the 18th April it was received at the Tuileries. It declared that all persons who had the misfortune to have their property invested in government securities had suffered more injury in six months of peace, than in twenty years of war. It described in vigorous terms the misery of the fundholders, the uselessness of payments in paper, the discharge of debtors, the rise in the price of food, and said that the edicts would ruin all the magistrates in France. But this remonstrance was treated with the same contempt that all others had been.

524. On the 16th May, 4 millions of life annuities had been created, chargeable on the Company, in order to withdraw 4 millions of bank notes, and on the 21st an edict was issued which gave the final blow to the whole system. The edict recited that before the establishment of the bank, the high price of silver had caused more evils to the kingdom, than all the extrava-

gance and the wars of the late king. That lenders demanded more interest in a month, than the law allowed in a year. That many of the nobility had been forced to sell their estates at a low price, in order to maintain themselves in his Majesty's service. They had no resource but his Majesty's favor, and he was unable even to pay the salaries of his officers, and the pensions awarded for good services; manufactures, navigation, and commerce had nearly ceased, the merchant was bankrupt, and the workman obliged to leave his country, and seek employment abroad. Amid the universal misery, the lender of money alone enjoyed abundance. By the establishment of the bank, and the Indian company, the king had restored order to public affairs. By raising the price of land, the nobility were relieved, commerce and navigation re-established, the fields cultivated, and the workmen employed. Notwithstanding the benefits of these establishments, people were found so evil disposed as to wish to injure them, which had obliged his Majesty to issue the proclamation of the 5th of March, to support the credit of these necessary institutions, by depreciating the coinage. By this all securities were reduced to one species, notes and shares were made mutually convertible at fixed rates. His Majesty was bound to see that the interests of minors, hospitals, and religious communities were duly protected. These had been cared for by the edict of the 11th of March, which ordered the reduction of the price of paper. But as this reduction must produce a diminution in the price of food, furniture, merchandise, and land, his Majesty considered that the interests of his subjects demanded that the money price of shares and Bank notes should be diminished, to maintain them in a just relation with specie, and other commodities, and prevent other inconveniences. His Majesty had the more willingly agreed to the reduction, because it would be beneficial to the holders of shares and notes themselves, and they would procure 50 per cent. more specie for them than they could at present. For these reasons the Company's shares were to be gradually reduced from 9,000 livres, their present rate, to 5,500. A reduction of 500 livres was to take place on the 22nd of May, the day after the edict, a further reduction of 500 on the 1st of July, and then a reduction of 500 livres on the first of each succeeding month. Bank notes were to suffer a successive reduction of 5 livres at the same times, until they were reduced to 50 livres. But the king would receive them at their present value, in payment of taxes, and the purchase of life annuities, till January, 1721.

525. This edict spread the utmost consternation throughout the country. It is even uncertain who its author was. The Council of the Regency and the Parliament were having their vacation. Saint Simon and most of the other Members of the Council were in the country. Dubois, Argenson, and Law alone remained with the Regent. Saint Simon expressly says, that Argenson, who was now Law's enemy, was the author of it, and proposed it for the purpose of ruining him. Saint Simon ought to be an unimpeachable authority. But other writers say, that Law himself was the author. At all events, whoever was the author, it was decided upon by

a very small minority of the Council. Whenever the more influential Members heard of it, they addressed the most earnest remonstrances to the Regent. Saint Simon complained that he was never listened to. The Duc de Bourbon was furious at the loss of half his property, and could only be appeased by the gift of 4 millions. The people threatened a revolution. Many pamphlets were published against Law, and the Regent. Letters were sent about Paris, saying that a Saint Bartholomew would be enacted on Saturday and Sunday, unless things were changed, and advising people to stay at home. Crowds collected in the neighbourhood of the Bank, uttering menacing cries, and on the 25th the windows of the hotel Mazarin, where the Bank was, were broken with showers of stones. The Parliament sided with the people. It met on the 27th, and demanded an audience; which the Regent did not dare to refuse, and was obliged to behave civilly to them. Law in vain tried to allay the rising storm, by publishing a letter stating the grounds of the decree, and shewing that the people would lose nothing, as the marc would be reduced to 30 livres. No one would listen to him. The Court and the Parliament were infuriated, and in spite of his protest, the Duc d'Antin persuaded the Regent to quash the edict of the 21st May.

526. At 11 o'clock the Parliament received the answer of their committee; the people shouted for joy as they believed the Directors of the Bank were going to be hung, as fraudulent bankrupts. The Regent had up to this time supported Law in public, in the most ostentatious manner. On the 25th he had taken him to the opera, but after the 27th, he was obliged, for form's sake, to abandon him for a while, and take council with the opposite party. Law was dismissed from his office of *contrôleur-général*, and the administration of finance divided into five departments. The Major of the Swiss guards went to take possession of Law's hotel. He went with the Duc de la Force to call upon the Regent, he was publicly and ostentatiously refused admittance at the front door. The next day he was smuggled in by the backstairs.

527. On the 29th of May, the edict of the 11th of March was repealed, specie was restored to its old value, and every one was allowed to have as much as he pleased. Two of the new intendants of Finance went to the Bank, to examine its affairs. They found 21 millions of specie, 28 millions in bullion, and 240 millions of bills of exchange, to support the credit of 3 milliards of paper.

528. As soon as the first burst of public fury was over, Law was restored to favor. But instead of controller of finance, he was made councillor of state, intendant-general of trade, and director of the Bank. Law thus triumphed once more over his enemies. Argenson was dismissed, he retired to apartments he kept in a convent, and soon afterwards died of grief. For three years D'Aguesseau had been pining in solitude at his country house, seeing the hopes of advancing his family blighted. Law took with him Confians, a cousin of the Chancellor's, and went to his house. The one cajoled him with promises of advancement, and the other menaced him with perpetual exile if he did not yield. They

prevailed, and brought him back to Paris. He was restored to his honours, but not to the esteem of the people, who ceased to respect him, when he came to associate his name with bankruptcy and ruin.

529. The Company was ordered to make up a balance sheet, which was ready by the 3rd of June. It shewed 300 millions in cash, large commercial adventures in progress, 500 large vessels besides smaller ones and frigates, rich cargoes, immense improvements made in the collection of taxes, well kept books, and in short, a state of affairs by no means desperate. To surmount its present difficulties, it proposed to reduce its shares, and make a call of 3,000 livres on each. Of its shares only 194,000 remained in the hands of the public, the king had 100,000, the bank and the Company itself, 330,000. The Directors requested the king to abandon his, and promised to destroy such a number of their own as would reduce the whole number to 200,000. They offered to convert the 25 millions, which they received annually from the state into annuities, and to such of their shareholders as paid the call of 3,000 livres, they promised to give 3 per cent. instead of 2½.

530. The Regent immediately adopted these measures, and the call was authorised to be paid either in notes, or shares, which were to be received at 6,000 livres. The parliament gladly registered the edicts, which gave hopes of the restoration of public credit, and a temporary good feeling seemed restored between the court and the parliament. But unfortunately it did not last. However rigorous these measures were, and however effective they might have been at an earlier period, they were now too late to restore public confidence. Few paid the call on their shares, the greater number preferred to have 2½ per cent. on their capital, than to risk new capital and its interest. The bank notes sank lower and lower, and the 600 millions which had been expected to be withdrawn, remained in circulation. No one cared to demand the stock. On the 11th of June, it was determined to burn all the notes of 1,000 up to 10,000 livres, as they came in to the bank. But none came in. On the 26th the company was authorised to create 100 millions of notes, from 100 to 10 livres, to be stamped with the word *division*, and to be exclusively given in change for the large notes, a good number were exchanged, but credit was not improved. The bank opened for payment of its notes on the 1st of June, and paid these of 100 livres, but it was soon obliged to restrict its payment to those of 10 livres. An immediate run commenced upon it. Dense crowds of workmen and small tradesmen, whose sufferings from the depreciation of the paper were dreadful, besieged the doors, day and night, and filled the neighbouring streets, in compact masses. Many remained for nights in the streets, until they got a chance to get inside the bank. Nearly every day several persons were crushed, or trampled to death by the infuriated mob.

531. These scenes continued for five weeks; at last, on the 6th of July, the money was exhausted, and it was notified that the exchange of large notes for small ones, and the payment of the latter in cash, would only take place twice a week, on market days, at the offices of the com-

missaries of the quarters, but this produced little relief. Not more than about 360,000 livres could be paid away in a week, and this was quite insufficient to satisfy the wants of the people. The disorder, instead of diminishing, increased. Payments were obliged to be resumed at the bank, and change in specie, to the amount of 10 livres, was given to each one. To prevent famine and revolt, 400,000 livres a week, were sent to the market of Poissy, 50,000 to another of the markets, and large sums in specie were given to the manufacturers to pay their workmen. Still the relief was imperceptible. With upwards of £100,000,000 of paper in circulation, the liquidation attempted was a mere drop in the ocean. On the morning of the 17th July, 1720, an unusual crowd collected round the bank. At three in the morning, there were already 15,000 persons waiting the opening of the doors. The crowd kept continually increasing, and in a short time 12 or 15 persons were trampled to death. The sight of the dead bodies infuriated the crowd. They were placed on litters, and the mob rushed with furious cries to Law's house, and attacked it with showers of stones. They carried one body to the Louvre, where the king resided, and three others to the Palais Royal, to inflame the people against the regent. The regent was absent, but the members of the council, at the hazard of their lives, tried to pacify the raging populace. The dead bodies were ordered to be taken with the utmost respect to a church, and buried at the public expense. The tumult raged for hours. The Palais Royal was filled with troops, and the gates opened. As soon as the mob had rushed in, the gates were closed, and the crowd was separated. At 10, Law took refuge in the Palais, and did not venture out for ten days.

532. The Regent proposed several measures to the Parliament to withdraw the paper notes, which were now said to be reduced to about 2,200 millions, but the Parliament rejected them all. The Regent, in a rage, exiled them to Pontoise, on the 18th of July, and they were forced to register the edict of their own disgrace. The people were indignant, as they thought they had lost their only protectors, and most of the public bodies sent deputations to them. The Regent tried to throw all the blame on the Parliament, but the people were not deceived. They became more irritated and seditious every day. The bank had finally stopped payment on the 17th July, and the prices of everything rose from the depreciation of the paper. The people, in their misery, threatened assassination. The mother of the Regent received threatening letters, saying, that 200 bottles of poisoned wine had been prepared for him, and that if that failed, a new kind of fire had been invented to burn him alive, in the Palais Royal, and herself at St. Cloud.

533. In the beginning of August little papers were thrown into the houses and carriages, with the words "Sauvez le roi, tuez le tyran, et ne vous embarrassez pas du trouble." The city was everywhere placarded with a *chanson*, sung in every drinking house:—

"Français, la bravoure vous manque,
Vous êtes pleins d'aveuglement:
Pendrez Law avec le régent,
Et vous emparerez de la Banque,
C'est l'affaire d'un moment."

A parody of the last scene of *Mithridate* was stuck up on the very door of the Regent's room, in which he and Law were represented as triumphing over the ruin of France. The Regent, in a rage at the atrocious calumny, cried out before his friends, that he would give 100,000 crowns to discover the author. The next day, there was written on his door—

"Tu promets beaucoup, ô Régent,
Est ce en papier, ou en argent?"

The Regent suspected the Abbé de Villier to be the writer of this insult, and had him assassinated near the Port Neuf, on the 28th.

534. One of the means proposed by Law for withdrawing the paper from circulation, was to open a current account at the bank for 1,200 millions of paper, on the principle of the banks of Holland, and by purchases of the shares of the company. In every town where there was a mint, the merchants were ordered to bring in their notes of 1,000 and 10,000 livres, which were to be cancelled before them, and they were to receive an equal credit in the bank's books, to be drawn upon with checks, with which they were to pay and receive all their debts. All money paid into their account was to be exempted from depreciation and seizure, on any pretext whatever. All bills of exchange of 500 livres and upwards, and wholesale transactions, were to be settled by these means. All others were to be void, and to subject both parties to a penalty of 500 livres to the bank. Another edict gave the company a perpetuity of its rights of trade, on the condition of withdrawing 600 millions of paper, at the rate of 50 millions a month. To do this, it had no means but creating shares. To confirm the confidence of the public, all its privileges were solemnly confirmed to it on the 22nd of July. Two edicts of the 31st July, and the 14th of August, authorized the creation of 50,000 and 20,000 shares of 12,000 livres each, to be issued at 9,000 livres, and paid in bank notes. The company thus hoped to withdraw 630 millions. But the delusion had passed away, very few shares were bought, and only 200 millions of notes were brought into the current accounts. On the 29th of July, the marc of silver was raised to 120 livres. On the day after that the bank notes were at par, but by the end of August, after many fluctuations, they had fallen to 33 livres.

535. The affairs of the bank were utterly desperate, no financial operation could save it. During July it alleged that 597,756,030 livres of its notes had been burnt, but this was said to be an exaggeration. The opening of the current accounts and the creation of stock had absorbed 700 millions, but on the most moderate calculation 1,400 millions still remained in circulation, and there was no possible means of withdrawing them. All the cash was exhausted by the 17th of July. It was then finally resolved to abolish the bank. On the 28th of August two edicts were sent to the bank, to create 4 millions of life annuities, and 8 millions of perpetual annuities, to be paid for in bank notes of 1,000 and 10,000 livres, which were to have no currency after the 1st of October. The 100 and 10 livre notes were to be received in commerce till the 1st of May, 1721. All payments above 1,000 livres might

be made in specie, and notes were only to be received at their nominal value in payment of taxes. In September 100 millions of 50 and 10 livre notes were created, to satisfy the holders of the large notes, who complained much of the compulsory conversion of their notes into annuities. They were allowed to have one-tenth of their capital in money. These measures, however, did not restore the credit of the notes, which continued rapidly to fall. On the 15th of September the 100, 50, and 10 livre notes were ordered to be received without specie in payment of debts till the 1st of November. From the date of the edict notes of 1,000 and 10,000 livres, and from the 1st of November, the other notes could only be tendered along with one-half of the debt in specie. One-fourth was to be struck off the credit of the current accounts, unless the creditors would receive them in 1,000 livre notes. Repeated alterations were made in the value of the coinage.

536. All these measures had but a very slight effect in reducing the paper money. With all the shares, annuities, and current accounts which had been made since the 1st of August, only 30 millions had been brought in by the public. Only 100 millions were burnt in August, not a single note in September. The treasurers of the state and the company held only 90 millions. There were still 1,369,072,540 in the hands of the public, which no ingenuity could call in.

537. On the 10th of October, 1720, the final doom of the bank was pronounced. The decree ordered that, after the 1st of November, no bank notes could be given or received in payments, on any pretence whatever. From the day of the decree all taxes must be paid in specie. The king and the company also engaged to pay their creditors in specie. Thus fell the bank, drawing with it all the miseries incidental to such a catastrophe, which may be imagined, but need not be described.

538. The company was involved in the fate of the bank, although Law used all his endeavours to separate them. On the 29th of August its organization had been changed, and Law named director-general. The Regent became protector and governor. It was henceforth to confine all its operations to commerce, and in order to increase its profits, its privileges were extended. It obtained the only two exceptions to its monopoly of maritime commerce—that to St. Domingo and Guinea—the former was granted on the 10th of August, and the latter on the 27th, in perpetuity. But the shares did not rise. In August the company had bought in 100 millions of its own shares; in September they were fixed at 2,000 livres. The directors were authorized to create 50,000 new ones, in tenths, of 200 livres each, to be issued at 800 livres, and to be paid for in bank notes. Three-fourths of the value of the shares being struck off by an arbitrary edict, no one came forward to buy the new ones. On the 5th October a decree rendered compulsory the call of 3,000 livres per share, and all shares not paid upon were to become stock, with only 2 per cent. interest.

539. These decrees were fruitless to prevent the fall in the value of the shares. It would be tedious to relate all the acts of violence resorted to in the desperate endeavour to sustain their

falling credit. They were then at 2,000 livres in bank notes, which were only worth 200 livres in specie. The panic was doubled on the 27th of November, when it became known that the company had borrowed 22½ millions at 4 per cent., to carry on their trade and pay a gift of 20 millions they had promised to the king, on the last tampering with the coinage. This gave the final blow to the shares; they were then sold for a louis d'or.

540. This was the final ruin of Law, who was no longer safe in France. His enemies clamored for his arrest, as the author of all the miseries of the people. The Regent promised it, and he was only saved by the Duc de Bourbon. At last, in December, 1720, the order was obtained that he should leave the country. Law now saw himself irrecoverably lost. But he maintained an inflexible demeanour to the last. On the 12th of December, he appeared at the opera, and he affected a complete security amid the cries of the people. But he had resigned all his offices. The next day, after having received the visits of a great number of the nobility, he retired to Guernande, his country seat, and awaited the decision of the Regent, taking with him of all his fortune, only 5 millions of notes, and 800 louis d'or. In a few days the Duc de Bourbon wrote that he was ordered by the Regent to send him his passports, and a sum of money. Law refused the money, and immediately set out for Belgium. The son of Argenson was intendant of Flanders, and with injudicious zeal, arrested him at Valenciennes, notwithstanding his passport. The government at Paris severely reprimanded the meddling official, and

he was ordered to be set free. The public were thus apprised of his departure. For a long time it was believed to be merely a stratagem, and that he had been secretly brought back, and retained about the Regent. When the people were at last convinced that he was really gone, they as usual, revenged themselves in an epigram:—

"Cy git oet Ecossois célèbre,
Ce calculateur sans égal,
Qui, par les règles de l'algèbre,
A mis la France à l'hôpital."

541. Thus ended the "SYSTEM." In the beginning of 1721, the Company, which according to the daring scheme of its author, was intended to combine finance, commerce, navigation, and banking, was stripped of its privileges. They only requested to be allowed to retain their tobacco trade. Henceforth they were nothing but an assembly of private merchants, till they once more had fortune placed in their grasp, and again missed it, and were finally dissolved.

542. The variations of the coinage of England have been bad enough, but they are as nothing, compared with those of the money of France. (COINAGE OF FRANCE). Law had argued with great force against the fraud and inutility of such proceedings, but when he was driven by necessity, and the danger to his own paper money, he broke through all his principles. M. Levasseur, who has published by far the most complete account of Law's system, gives in his *Recherches Historiques sur le système de Law*, Appendix H. p. 398, the following list of the alterations of the coinage from the 7th of May, 1719, to the 18th November, 1720.

THE GOLD COINAGE.

l. s.

1719.		
May 7.	The louis d'or, à la croix de Malte, called chevaliers, and coined in 1718, at the value of 86 livres (25 to the marc) were reduced to	85 0
July 2.	Altered to	84 0
Sept. 23.	"	83 0
Dec. 1.	Quinzains struck, 64 to the marc	15 0
Dec. 3.	The louis reduced to	82 0
Dec. 11.	. . . . .
1720.		
Jan. 22.	The louis raised to	86 0
Jan. 28.	The louis reduced to	84 0
Feb. 7.		
Feb. 25.	The louis raised to	86 0
March 5.	The louis raised to	48 0
March 11.	The louis reduced to	42 0
	On April 1st to	36 0
	To be withdrawn on the 1st of May	
March 16th.	. . . . .

THE SILVER COINAGE.

l. s. d.

Ecus called Navarres, coined in 1718, at 6 liv. (10 to the marc) were reduced to	5 16 0
Ecus	5 12 0
On the 1st Jan., 1720, to	5 8 0
On the 1st Feb., 1720, to	5 4 0
Pieces of 1 liv., (65½ to the marc)	1 0 0
Pieces of 1 liv., reduced to	0 18 0
On the 1st of February to	0 17 0
Ecus raised to	6 0 0
" reduced to	5 13 6
Twenty sous pieces reduced to	0 18 0
Ecus raised to	6 0 0
Twenty sous pieces to	1 0 0
Ecus raised to	8 0 0
Twenty sous pieces to	1 10 0
On the 1st of April, écus to be	7 0 0
1st of May	7 10 0
1st of June	6 0 0
1st of July	4 10 0
The 20 sous piece to be worth—	
In June	1 5 0
In July	1 2 6
In August	1 0 0
In September	0 17 6
In October	0 15 0
In November	0 12 6
In December	0 10 0
Tiers écus struck to be worth	8 0 0
In May	2 15 0
In June	2 10 0
In July	2 5 0
In August	2 0 0
In September	1 15 0

THE GOLD COINAGE. (*Continued.*)

		l. s.
May 29.	The louis restored to currency at . . .	49 10
June 10.	The louis reduced to . . .	45 0
	On the 16th July to . . .	40 10
June 14.	The louis in August to be . . .	36 0
	New louis struck at . . .	49 10
July 30.	The new louis to be . . .	72 0
	On 1st September . . .	68 0
	16th . . .	54 0
	1st October . . .	45 0
	16th October . . .	36 0
	In September old louis to be . . .	36 0
	New louis of the same weight . . .	54 0
Oct. 24.	The old louis to be . . .	46 16
	New . . .	45 0
	The new on 1st January, 1721 . . .	36 0
Nov. 18.	The new louis to be . . .	45 0

THE SILVER COINAGE. (*Continued.*)

		l. s. d.
Tiers écus	In October . . .	1 10 0
	In November . . .	1 5 0
	In December . . .	1 0 0
Ecus restored to currency at . . .		8 5 0
Ecus . . .		7 10 0
		6 15 0
Ecus to be . . .		12 0 0
The tiers d'écu . . .		4 0 0
The 20 sous piece . . .		2 0 0
The écu on 1st September . . .		10 10 0
	16th September . . .	9 0 0
	1st October . . .	7 10 0
	16th October . . .	6 0 0
The new tiers d'écu . . .		3 0 0
The old écus (10 to the marc) . . .		7 16 0
The new écus to be on—		
	1st December . . .	7 10 0
	1st January, 1721 . . .	6 0 0
The new écus to be . . .		7 10 0

Such were the tamperings with the coinage in the short space of nineteen months. We need only observe here, that they were the habitual practices of the French monarchs, and not introduced by Law.

543. On the 24th of January, 1721, a council was held to consider the means of liquidating the gigantic debts which were left on the dissolution of the bank. The members, as usual, bandied the most violent reproaches against each other. The Regent declared that Law had created 1,200 millions of paper more than he was authorized to do. A decree ordered the debts to be verified, and the management of the business was entrusted to Paris-Duverney and his brothers, who were recalled from exile on Law's banishment. It was vastly more difficult and complicated than the investigation of the debts at the death of Louis XIV.; and for several months 800 clerks were hard at work on the Herculean task. At length, at the end of August, 1721, the huge account was made up. The obligations of all sorts, including bank notes, amounted to 2,222,597,181 livres, besides 125,024 shares, which, at the last reduced legal value, were 250,048,000 livres, making a total of 2,452,645,181 livres, in claims, owned by 511,009 proprietors, whose titles were investigated. These were the remains of obligations and shares, which were at one time of the nominal value of twelve milliards, or about £480,000,000. But, in fact, not two-thirds of the creditors brought in their claims to be verified, as they remembered the severities of the former investigation.

544. Nor were they mistaken. No sooner were the claims ascertained than every means of fraud and violence were taken to reduce them. About 35,000 were called upon to prove the legality of their titles. The commissioners were ordered to call upon all notaries public to produce all the deeds connected with the negotiations of shares, and stock for the last two years. All persons, who had had share transactions within that time, were ordered to give in an inventory of all their property of all sorts, which they had acquired since the establishment of the Indian Company. A decree of the 23rd November, 1721, reduced the 125,024 shares, which had been brought in, to 50,000, and fixed the dividend at 100 livres. The claimants were divided into five classes, in the first were placed those paid by the

king; in the second those between private parties; in the third those sold for landed property; in the fourth those sold for moveable property, places, salaries, and gifts; in the last those whose origin was not declared. The first class were paid in full; the second were deprived of one-sixth of their claims, and the rest in increasing proportions, till the fifth, who lost nineteen-twentieths. The same reductions were applied to bank notes, and, to meet the reduced claims, the king applied 40 millions of the revenue from the 1st January, 1722. The commissioners met in December, and 1,500 clerks were employed under the famous Barême, to effect the liquidation. Numbers of the clerks were prize fighters in disguise, to quell any tumult. The company had already publicly destroyed about 50,000 shares, and, in the beginning of November, the remainder, estimated at 404 millions, were burnt, as well as 2,845,000 bank notes. By the end of June, 1722, the conversions were effected, and the obligations, by the violent and fraudulent means detailed, were reduced to 1,700,793,294 livres.

545. These measures only struck the then holders of obligations. It was determined to strike at those who had made immense fortunes by speculation, and had retired in time. They were called *Mississippiens*, and their luxury and insolence, amid the general misery and ruin, had excited the greatest indignation. Many were called upon to disgorge 20 or 30 millions, a bank clerk 50 millions, and Vincent le Blanc 80 millions, and then an extraordinary tax of 187,893,661 livres was laid upon them. One fortunate speculatrix alone was compelled to pay 8 millions. On the 17th October, 1722, the final scene of this extraordinary drama was enacted. An immense iron cage, ten paces long and eight broad, was constructed in the court of the bank. Everything connected with the final liquidation, notarial acts, contracts, registers, &c., were piled in it, and, in the presence of the public, the torch was applied, and all records of this stupendous catastrophe vanished in the blaze.

546. The company survived. Its shares were reduced to 56,000. The king owed it an income of 3 millions, on account of the 100 millions it had withdrawn in 1717. To secure these, the tobacco monopoly was restored to it, valued at 2,500,000 livres, and the revenues of Louisiana,

valued at 500,000. Each of these was in reality worth double what they were estimated. It regained the commerce of the East, and an Indian Council was erected to control it. Each share, besides the profits of trade, was guaranteed a dividend of 100 livres in 1722, and 150 livres afterwards. The monopoly of the sale of coffee was conferred upon it in August, and in February, 1724, the exclusive right to set up lotteries. It only remained to liquidate 1,512,899,348 of bank notes. To do this, life annuities at 4 per cent., and perpetual annuities at $2\frac{1}{2}$ per cent. were created; 31 millions of perpetual, and 16 millions of life annuities were formed on these terms.

547. M. Levasseur, (*Recherches Hist. sur le Système de Law*, p. 308-9), gives the following as the variations in the value of the bank notes and shares. On the 17th July, 1720, at the closing of the bank, the 10 livre notes only passed for 40 sous. In April, 1721, the 100 livre note passed for 6 livres 10 sous. The 1,000 livre notes were only worth 55 livres. After the *visa*, they lost about 80 per cent. even of that value. In February, 1721, the 100 livre notes passed for 4 livres of silver; in April, for 6 livres 10 sous; in May, for 8. In March, 1722, those not *visés* for 5 livres, and those *visés* for 7 livres; on the 28th, they rose to 14 livres; on the 17th April, to 19 livres; on the 18th they were at 16 livres; on the 21st at 24 livres 10 sous; and on the 22nd at 23 livres 10 sous. The shares after the *visa* varied from 1,000 to 900, 850, 800, and 730 livres; in September, 1721, they sold for 500 livres. In 1722, speculation began to revive in them, and the price rose to 1,500 livres. In August, 1723, the Duc d'Orléans was declared perpetual director of the company, but he died on the 2nd of December, and the shares immediately fell to 900 livres.

548. On the 15th of February, 1724, the Duc de Bourbon, who succeeded Orleans as prime minister, and who had made enormous sums by the company, conferred on it the right to establish lotteries. The shares again rose to 3,000 livres. In 1725, it recovered the monopoly of the Indian trade, the African, and that of Louisiana, and the sole right of selling slaves, tobacco, and coffee in all colonies established, or to be established. It was enabled to start afresh. All its previous debts were cancelled. It had thrown away a chance in Louisiana, which might have raised it to the highest power and wealth. Once more a future of surpassing brilliancy was opened to it. Under the name of the French East India Company, it founded Pondicherry, Chandernagore, and other settlements. The abilities and ambition of its servants, Labourdonnais, Lally Tolendal, and Dupleix, first founded a great European power in the east, and if it had not been for the genius of Cuvée, France, and not England, might have been at this moment the mistress of India. But it was not so to be. Every one knows the sequel of the contest in the plains of Hindostan. The Company overwhelmed with defeat, debts, and mismanagement, was finally dissolved in 1769.

549. Such is a plain historical narrative of the greatest financial catastrophe the world had then seen. We have in this place advisedly abstained from giving any account of Law's theory of money, upon which it was founded. That is

fully done in its proper place, (Law), and we purposely keep the narrative of the facts separated from an examination of the theory. At the present day, it is usual to class the Mississippi scheme along with the South Sea bubble, as the type of everything that is fraudulent, and Law himself is often thought to be nothing but a juggler, an imposter, and a charlatan. But this is a very hasty and erroneous judgment indeed. Even men who were opposed to his system, like St. Simon, bear witness to his integrity, and the sincerity of his belief in his own theory. No single man probably every raised a country in so short a time from the depth of misery to prosperity, as Law did France, from 1716 to 1718, by the institution of his bank. It was like the stroke of an enchanter's wand, and contemporary writers testify that the marvellous change was regarded with wonder and admiration throughout Europe. The foundation of the Mississippi company was no swindle, but an exceedingly well devised enterprise, which, if it had been properly managed, might have been as successful as any in the world. Law's own writings prove that he had as sound knowledge of banking as any man of his day, which is also proved by his administration of his own banking company, before it was converted into the Royal Bank, and mixed up with an erroneous theory. His great error lay in his conception of the nature of money and credit. In his general proposition that credit might be advantageously used to increase production, he was undoubtedly right. But his erroneous notions of the nature of credit were founded on an erroneous notion of the nature of money. But his notions of the nature of money were not peculiar to him, they were the current notions of the age, and they were held by many eminent writers long afterwards. For it was usually conceived that money is the *sign*, or *representative* of wealth, and this notion is fully adopted in the *Espit des Loix* (MONTESQUIEU). Now it is the invaluable service that Turgot did to the science of Political Economy, to shew that this conception of the nature of money is erroneous, that money is not the *representative* of value, but an independent article of value itself. It is the very first lesson in Political Economy to understand clearly the doctrine established by Turgot of the nature of money, and wherein it differs from the current doctrine of the age. (CURRENCY: MONEY: TURGOT.) But successful as Turgot was in explaining the true nature of money, he wholly failed in understanding the nature of credit. For he, and a host of writers after him, considered instruments of credit as *representative* values, as being the *signs* or *representatives* of goods, or money. Now this is the identical fallacy which he so successfully combated with respect to money. Law instinctively felt that money and credit are homogeneous, and his idea of credit was the necessary and logical consequence of his idea of money. Turgot wholly failed to see that his doctrine of the nature of money was equally applicable to that of credit. Instruments of credit are not the *signs* or *representatives* of value, but are independent articles of value themselves. Credit is property, and not the *representative* of property, as every man who is acquainted with the law of instruments of credit knows. (BYLES, JUSTICE). There

is no man who is at all conversant with the law of instruments of credit, who can fail to see that Adam Smith, Ricardo, and other English Economists have wholly misunderstood the nature of credit. The chances are infinite against any one who does not understand the law of the subject, forming a true conception of the matter. Under the article CREDIT, we have shewn the extraordinary self contradictions and incongruities, into which the most eminent writers are led from erroneous conceptions of its nature. We must content ourselves here with referring to the various articles in this Dictionary in which the subject is discussed. (BANK NOTE: BILL OF EXCHANGE: BYLES: CREDIT: PROMISSORY NOTE.)

550. Now Law's scheme was undoubtedly a *bonâ fide* attempt to carry out, not only his own theory of money, but that which was generally prevalent in his own age. The history and result of the experiment is peculiarly worthy of study, because the very same ideas are now very extensively prevalent, and are maintained by numerous writers. How many ingenious works are published now, in which credit is described as the *mobilisation* of property, or some such term as that, or are founded on the notion that instruments of credit *represent* property (CIESZKOWSKI; HILL, EDWIN.) and this false and fatal doctrine has led astray even able Economists, (BAUDELLART; GARNIER, JOSEPH.) Now this is the very doctrine which we call LAWISM, it is exactly the very essence of Law's theory, the very conception which is the basis of his "Système," whose history we have just narrated.

551. Nor is it just to attribute the awful result wholly to Law. Saint Simon expressly tells us that it was greatly due to the boundless extravagance of the Regent and the Court. Law was surrounded with a crew of rapacious and needy courtiers, and nobility, who believed that he had in his hands the power of creating boundless wealth. These persons were of such power that no man in his position could resist them. Thus, shares and notes were multiplied, and the future had to be drawn upon to support the credit of the present. Immense obligations were created which nothing but enormous profits could meet. And these profits had to be forced. Thence all the violent means used to force on the colony, and the jugglery to raise the value of the shares. Then, when the inevitable laws of nature, which had been so fearfully misunderstood, operated, the violent tamperings with the coinage; to which there had been no stronger opponent than Law himself. But from these extravagant issues of paper, Law found himself in a fatal vortex, from which no escape was possible, and thus enterprises, which in themselves were sagacious and beneficent, were brought to ruin, by a false theory destroying and overwhelming what was unquestionably sound. The real error of Law was not in mistaking the effects of credit, but in mistaking its *nature* and its *limits*.

552. Nor can we agree with M. Levasseur, who says that Law erroneously thought that the stock, &c., he created was real wealth, whereas it was only *imaginary* and *fictional* riches. The stock of a successful enterprise is undoubtedly part of the wealth of the country. Does any man doubt that the stock of the Bank of England, or of the London and

Westminster Bank, or of any other of the great banks, or East India Stock, is independent property, and part of the wealth of the country? And why not Mississippi stock, if it had been a successful enterprise? Even if the superstructure was too great, and ruined the whole, would not a moderate amount, justified by the reality, have been an addition to the wealth of the country? If an architect builds a tower too high for its base, and the whole comes tumbling down and is destroyed, that does not prove that a properly constructed tower, and one suitable to its basis, would be nothing. And this was Law's error, and the error of his theory, it wholly failed to show what were the true limits to which the operation might be carried. And this neglect ruined the whole, and destroyed institutions which might have been of incalculable benefit to the country.

553. The unfortunate result of the first experiment of a bank in France sickened the people of paper currency for many years, and no attempt was made to found another bank till 1776. On the 24th of March of that year, the king, on the report of Turgot, issued a decree in favour of Jean Baptiste Gabriel Bernard, to form a bank, which was called the *Caisse d'Escompte*. Its capital was to consist of 15,000,000 livres, of which five millions were to be kept by the company, and ten millions deposited in the Royal Treasury, as a loan, for which they were to receive receipts for 13 millions, payable in thirteen years, in half-yearly payments. The bank commenced business on the 1st of June, 1776, and they were allowed to issue bank notes, payable to bearer on demand, at discretion. By a decree of the 22nd September, 1776, the constitution of the company was modified. No loan was to be made to the king, the sum already advanced was repaid, and the capital was reduced to twelve millions, which the company might trade with. By another decree of the 7th of March, 1779, the shares were fixed at 4,000, and the funds of the company were only to be employed in discounting bills of exchange, and other negotiable instruments, at a fixed *échance*. Interest was to be four per cent. in time of peace, and 4½ in war. In 1783, there was a general monetary crisis in Europe, a great export of specie took place, the exchanges were greatly against the country, which, of course, the bank was unable to counteract, as it could not raise its discount above four per cent. A very severe pressure on the bank began, and on the 26th September its specie was reduced to 138,000 livres. On the next day a Royal decree appeared, authorizing the bank to suspend payments in cash until the January following. Its notes were declared to be legal tender, and all actions against it for payment of them stopped. Another decree of the 30th forbade the export of specie. On the 23rd November a decree made the acceptance of the notes in payment voluntary. At the same time the capital was increased to 15 millions, by the creation of 1,000 new shares, and the directors were ordered by the proprietors always to maintain a reserve in specie of from one-third to one-fourth of the notes in circulation, and not to discount anything but negotiable obligations, not exceeding ninety days, those whose *échance* did not exceed thirty days at four per cent., and those of longer date

at 44. On the 10th December another decree ordered the resumption of cash payments immediately, and restrained the notes which the bank might issue to ten millions.

554. On the 16th August, 1788, the government were obliged to adopt a partial suspension of payments, and an edict declared that all future payments should be made partly in exchange bills, or *billets du trésor royal*, with five per cent. interest, and partly in cash. On the 18th an edict was issued, permitting the Caisse d'escompte to suspend payments. They, however, of their own accord continued to cash their small notes, and a large amount of cash was paid away, so that a second edict in December, directed them to stop all payments in cash. Necker, being at his wife's end to raise money, applied to them for a loan of 15 millions on the security of exchange bills, to be redeemed in twelve months. Although this was contrary to the express orders of the shareholders, in 1788, they complied with it, as well as several other requisitions he made. In January, 1789, the directors lent Necker 25 millions from their own funds, and, on the 1st of April, they made him a further advance of notes to the amount of 10 millions. In September, 1789, they made another of 12 millions, also in notes. Of course these continual issues of inconvertible paper produced their usual effect. They fell to a discount of 5 per cent., and drew specie out of circulation. In September, 1789, Mirabeau severely attacked the conduct of the Finance Minister, and of the Caisse d'Escompte, in the National Assembly, and proposed that it should be compelled to resume payment. He severely stigmatised the suspension as a breach of public faith, and as illegal. But he did not succeed in his motion. On the 6th of November, he again brought the subject before the Assembly. He said (*Moniteur Universel*. Vol. II., p. 146. Edit. 1857) that specie had entirely disappeared from circulation, and that it had been exported in immense quantities, and that all commercial transactions were disorganized. That the exchanges had turned heavily against France, and that it was very profitable to export specie, that bills of exchange in Paris had fallen into utter discredit, and could not be negotiated on any foreign exchange. That this disorganization was entirely due to the edicts which had authorized the Caisse d'Escompte to suspend payments, and, at the same time, left it with an uncontrolled power of issue. The Caisse was daily augmenting the amount of paper money in the most alarming way. That it was running the very career that Law's Bank did. The notes were daily increasing, and daily falling in credit. On the frontiers 95 livres in specie were equal to 100 in paper, which naturally drew away specie from the capital. The merchants of the great commercial cities were in the utmost distress. At Marseilles there were scarcely ten houses which were not in the utmost straits. Matters at Bordeaux were no better. At Nantes, the merchants had been obliged to organize a system of private credit among themselves. Havre, Amiens, and Lyons, were equally distressed; they had not the means to pay for grain, which had been bought by a patriotic company. It was computed that 200 millions in specie had disappeared from circulation. He ended by pro-

posing that the Assembly should devise a scheme for a National Bank, to manage the finances, the public debt, and restore public credit.

555. On the 14th November, Necker said that an immediate loan of 170 millions was necessary for the State. He proposed that the Caisse should be erected into a National Bank, with exclusive privileges for 10, 20, or 30 years, with a Directorate partly elected by the Shareholders and partly by the State. That it should create 240 millions of notes to be lent to the State, and to be redeemable in 1791, and 40 millions for the purpose of discounting commercial bills. This plan, however, was warmly opposed by Mirabeau and others, and rejected. It appeared that it had at that time advanced 85 millions to Government, and besides, had upwards of 114 millions of notes in circulation. So much for the resolution of the Shareholders which had ordered its issues to be confined to 10 millions!

556. This course once begun could not be stopped. On the 1st January, 1790, its advances to government had increased to 160 millions, and were to be still further increased to 240 millions by the 1st of July, at which date, however, the government had undertaken to liquidate its entire debt. In February, its advances to private parties had increased to 144 millions. The notes were falling daily to a heavier discount, when it became necessary to adopt another plan, and the Assignats were devised, and it is remarkable that Mirabeau, who was such a strong opponent of the suspension by the Caisse, and of its inconvertible notes, was one of the principal supporters of the Assignats. As these could not be prepared as soon as was expected, the notes of the Caisse were ordered to be received instead of them, and to be converted into them when they were ready. On the 29th of May, the notes had fallen to a discount of 10 per cent. On the 1st July, the King published a proclamation, calling upon all persons to exchange their notes for Assignats, and finally releasing the Caisse from any future redemption of its notes in specie.

557. The Caisse was thus manifestly struck with a fatal blow, but it continued to carry on its operations some time longer. But the existence of such an anomalous institution, issuing inconvertible paper at will, could not manifestly long subsist, and, on the 25th August, 1792, a proposal was brought forward in the Legislative Assembly to suppress it. The Caisse offered to redeem 900 millions of assignats in specie, probably with a view of staving off its own suppression, and the assembly accepted this act of patriotism. Within a month the assembly itself came to an end. The National Convention which followed took no heed of its services, and on the 24th of August, 1793, a decree was passed, abolishing the caisse d'escompte, all life assurance companies, and, in fact, all joint-stock companies whatever, whose capital was formed of transferable shares, and prohibiting all such companies for the future, without the special authority of the legislature. Commissioners were appointed to seal up all its repositories, and its notes were all ordered to be converted into assignats.

558. In 1796, the whole system of Assignats was destroyed; and a metallic currency immediately re-appeared. The *caisse d'escompte*

had perished, but the necessity of a public bank was felt so strongly, that the bankers of Paris soon organized one, which was called the *Caisse des Comptes Courants*. At the time this bank was founded, the rate of interest was three per cent. per month. It issued notes payable to bearer on demand, and the rate of interest was soon reduced to six per cent. In 1798, a second bank, called the *Caisse d'escompte de Commerce*, was formed, and also issued notes. In the beginning of that year one of its officials robbed the *Caisse des Comptes Courants* of 2,500,000 francs. The directors, in alarm, gave notice of a suspension of payments, but some of the more strong-headed shareholders, and some of the directors, showed that it was still solvent, and that the *Solidarité*, or joint and several liability of its shareholders secured the public from any loss. The bank opened its doors next day, and the declaration of liability of its shareholders reassured the public, and its notes suffered no depreciation, and in a year it had regained more than a quarter of the loss. In the following year, one of the directors of the *Caisse d'escompte de Commerce* robbed it of 100,000 francs, but it had abundant means to cover the loss. The Bank of France assisted it, and it suffered no diminution of public confidence. One or two other banks were also formed, which issued notes,—and this, too, in a period of great public unsettlement.

559. After the events of the 18th Brumaire, the first Consul determined to form a State Bank. A considerable amount of rivalry had existed among the different companies, who tried to injure each other. Napoleon determined to suppress this, and only to allow a single bank. This was created by a decree of the 18th of January, 1800, and it began operations on the 20th of February. Its formation was very slow; there were 30,000 shares of 1,000 francs each, authorized to be created, but during the first year only 7,447 were taken. All public monies were paid into it. The other companies only discounted bills at an échéance of forty-five days; the Bank of France extended it to sixty days. In the first year, it discounted to the extent of 89 millions, and in the next one to 182 millions. In 1803, the intention of Napoleon to suppress all other banks was carried out. On the 14th April, a monopoly of issuing notes was conferred on the Bank of France, all other associations were forbidden to issue new ones, and obliged to withdraw those that were out. No bank might be formed in the departments without leave of the government. The bank's privilege was given for 15 years, its capital was raised to 45 millions, and its dividend limited to six per cent. All profits above that were ordered to be invested in government securities, as a reserve fund. It gave five per cent. on deposits till 1804, and four per cent. after that.

560. The bank had been instituted to facilitate the operations of government. One of these consisted in issuing its notes against public securities. The receivers of the taxes were in the habit of giving their promissory notes, in anticipation of the revenue. It was the custom of the bank to discount these at six per cent., when private parties would only do it at ten or twelve per cent. In 1804 it had discounted from twenty-five to thirty millions of these securities direct

to the government itself. Thinking this was as much as prudence warranted, they refused advances to several government contractors, whose paper was also of the same description. Napoleon, with that insatiable love of despotism, which thinks that the laws of nature must be subject to its will, and wholly unable to understand that the bounds of credit are limited, and cannot be forced, was very angry with the bank, and addressed the most earnest remonstrances to it. The bad effects of the issues were already felt, there was a constant drain of 200 or 300 thousand francs a-day from the capital to the provinces, and the bank made strenuous efforts to bring specie back again. At the end of 1804, the reserve of the bank amounted to 255 millions of stock, but the uncovered advances to the treasury were continually increasing. The situation inspired the directors with daily increasing alarm. They thought of selling their public securities, but the price was so low, that it would have affected their credit. Loans were raised upon them, and foreign credits were opened. But they could not diminish their advances to commerce, and their notes were constantly increasing from the discount of the obligations coming in from abroad. The loans had been raised for two months, and at the expiry of that term, the lenders refused to renew, and demanded payment, under threat of selling the securities. They were thus in the utmost straits, and determined to contract their commercial discounts. They refused to make any advances to commerce. This brought on an immediate commercial crisis. At the same time the report was spread that the Emperor had carried off the reserve of cash with him to Germany. This brought on an immediate run upon it, and in the beginning of 1806 it was obliged to stop payment. At this time it had ninety-seven millions of paper under discount, of which eighty millions were government securities. It limited the payment of its notes to 500,000 francs a-day. They were in a short time reduced to 48,334,000, and its metallic reserve fell to 1,136,000. The notes fell to a discount of ten per cent.

561. These were the very same causes that had brought on the stoppage of the Bank of England previously in 1797, namely an extravagant demand for issues on government securities, and then in the midst of this, a sudden and violent contraction of mercantile discounts. The report of the Directors said that the usual demands for specie were 500,000, and in the height of the panic they amounted to 1½ millions. M. Courcelle-Seneuil, says that the sudden contraction of commercial discounts was a deplorable measure, which precipitated the crisis, and added real to imaginary dangers. Napoleon was much annoyed at this crisis. By a law of the 22nd April, 1806, the capital of the bank was doubled, its administration was brought more under the control of the government, and its privileges were extended to 1831. Two-thirds of the profits were allowed to be divided. The suspension lasted four months. By new statutes of the 16th January, and the 18th May, 1808, it was permitted to establish branches in the departments. On the 10th January, 1809, one was opened at Lyons, and one at Rouen, and on the 29th May, 1810, one at Lille, but the rules of business were

so strict, that they had no success, and were abandoned, and the capital of the bank was reduced to 67,900,000 francs.

562. In 1812, the empire began to give signs of tottering. People were afraid to undertake any enterprise, and discount fell to two per cent. The bank had then in reserve 114 millions of specie, and notes in circulation to the amount of 117 millions, and only 15 millions of paper under discount, which actually fell to 10 millions. In 1813, the cash fell to 26 millions, and the notes to 85 millions. In January, 1814, a run of $4\frac{1}{2}$ millions of specie took place, its specie fell to 5 millions, and its notes to 10 millions, and its deposits on current accounts to 1,300,000. In 1815 it of course stopped payment. In 1818 there was another crisis, which we have also seen affected the Bank of England, and compelled its third suspension of cash payments in 1819. The cash in July, was 117 millions, in October it fell to 59 millions, and in November to 34. The *échéance* of bills was reduced to 45 days.

563. About this time somewhat more freedom was allowed to banking in the departments. Banks were opened at Rouen, on the 17th May, 1817; at Nantes on the 11th March, 1818; at Bordeaux on the 23rd November, 1818. A long interval elapsed before any others were formed. One was founded at Lyons on the 19th June, 1835; at Marseilles on the 29th June, 1835; at Lille on the 29th June, 1836; at La Havre on the 25th August, 1837; and at Toulouse on the 11th June, 1838. The Bank of France seeing the success of the departmental banks, opened branches, at Rheims on the 6th of May, 1836; at Saint Etienne the 17th June, 1836; at Saint Quentin on the 16th October, 1837; at Montpellier the 19th January, 1838; at Grenoble on the 31st March, 1840, and at Angoulême the 24th April, 1840. In that year the charter of the Bank of France was continued till 1867, with power reserved to revise it in 1865, and after this no departmental banks were allowed to be formed. The Bank of France established new branches at Besançon, Caen, Châteauroux, and Clermont-Ferrand, in 1841; at Mulhouse in 1843; and at Mans, Nîmes, Strasburg, and Valenciennes in 1846.

564. The operations of the Bank in 1846 were unusually extended, and, like the Bank of England, it suffered a great drain of bullion, which fell in six months from 252 millions to 80 millions. For twenty-seven years the rate of discount had been four per cent., in the beginning of January, 1847, it was raised to five per cent., which lasted till January, 1848, when it had 189 millions of specie, and the rate was reduced. At the end of 1846, the directors were obliged to obtain specie abroad, and they borrowed one million from English capitalists, at five per cent. on the security of stock. In March, 1847, the Bank was greatly assisted by an offer from the Russian government to purchase annuities, to the amount of 50 millions of francs. As vast sums were due to Russia for the purchase of grain, which must have been paid in specie, as soon as the navigation was open, the offer was gladly accepted by the Bank. This greatly helped to reduce the pressure on the Bank, and it neither reduced the *échéance* of the bills, nor curtailed its accommodation to commerce. The

only means used to meet the drain was to raise the rate of discount, and by the end of the year, the specie had risen to 181 millions, and was still flowing in. When the revolution broke out in February, 1848, it had 226 millions of specie. No institutions of credit could expect to survive such a convulsion. Nevertheless for a long time the Bank faced it bravely, and did everything it could to support commerce. In fifteen days from the 26th of February, to the 16th of March, it discounted 110 millions. Of 125 millions it owed to the treasury, it paid 77, besides 11 more placed at the credit of the government in the departments. It also discounted 43 millions at its fourteen branches, and lent great assistance to the departmental banks, to save them from stopping. The cash in Paris fell to 70 millions. On the 15th of March, it paid away 10 millions, and then had only 59 millions left. It was evident that the Bank could not go on paying specie more than a few days longer. That the Bank should stop and wind up its business, was not to be thought of. On the evening of the 15th, a decree of the government declared its notes legal tender, and authorised it to suspend payments, till further orders. Its notes were limited to 350 millions. It was ordered to publish a statement of its affairs every week in the *Moniteur*, and it was authorized to issue 100 franc notes, and the departmental banks were amalgamated with the Bank of France. Their stock was taken at par, and the Bank allowed to increase its issues by 102 millions. The Bank relieved from the necessity of paying their notes, bought 40 millions of specie at a considerable sacrifice. It made large advances of specie to aid the government, in March 30 millions; in May 30 millions, in June 150 millions, in instalments. It also assisted the cities of Paris and Marseilles with large loans, and many other establishments founded to support credit, and advanced to a considerable amount on merchandize and warrants, which it was not authorized by its statutes to do. The advances in Paris and the departments amounted to 60 millions. It made advances on all sorts of other property to support industry. It treated its debtors with the utmost leniency, and only adopted extreme measures against those who tried to deceive it. By these means a vast amount of commerce was sustained, which must otherwise have fallen. But the uncertain state of the country told with immense effects on trade. The discounts at the bank, which had been 100 to 150 millions from January to March, fell to 20 millions in December. On the 16th of March the sum under discount at the bank and its branches was 305 millions; on the 28th December the sum at the bank and its branches, including all the departmental banks, was 165 millions; and of this the sum at the Bank of France itself was only 42 millions.

565. In 1849, matters became still worse. In 1847, the total of operations had been 2,714 millions; in 1848, it was 1,874 millions; and in 1849, 1,328 millions; and the sum under discount at the Central Bank fell to 23 millions. On the 22nd December, 1849, the bank was authorized to increase its notes to 525 millions. Although it had been authorized to suspend payments, it had never done so in fact, and after some time, when matters got more settled, it had practically

resumed payment. As soon as this was done, people got tired of carrying their silver money about, and demanded notes for it, but the bank's issues were already at their full legal extent, and could not be increased, which created much public dissatisfaction. To meet this case its power of issue was increased by 73 millions. In 1850 a very slight improvement took place. The sum total of operations increased by 142 millions. In 1849 the greatest sum under discount at any one time was 47 millions, and in 1850, it was 44 millions. The maximum of 1847 was 231 millions. The minimum of 1847 had been 152 millions; in 1850 it was 23 millions. In 1851 the progress of the recovery was very slow. But in 1852, when order seemed to be restored to the state, it was extremely rapid, and the operations of that year fell but comparatively little short of those of 1847. Interest was reduced to three per cent.—the lowest it had ever been. In this year its privileges were extended to 1867. During the two following years its prosperity continued rapidly to increase. Soon after the middle of 1855 a very severe drain of bullion set in, caused, probably, by the war in the Crimea, and the deficiency of the harvest. To meet this, the bank was obliged to import, at a great expense, from 200 to 300 millions of specie, and to impose restrictions on discounts. This was caused by the absurd restraint on the rate of discount, which was limited to six per cent., when the market rate was considerably higher. In 1856, the same general stringency of money matters continued, and restrictions were imposed on the échéance of bills; on the 5th of October they were reduced from 90 days to 60, and on the 24th December extended to 78. Purchases of bullion at a heavy loss continued to be made in consequence of the absurd law fixing the rate of interest. In consequence of this absurdity, during 18 months from July, 1855, to December, 1856, the bank bought 814,300,000 francs of specie, at a loss of 11,215,000. At last this folly was repealed, and on the 27th of February, 1857, the restriction was taken off, and the rate of discount left free. The necessity and the advantage of this was soon seen in the great crisis of November, 1857, when discounts rose from 5½ in June to 8, 9, and 10 per cent. in November, according as the échéance of the bills was 30, 60, or 90 days. After the 27th of Nov. these rates were reduced one per cent., and after the 18th of December, the rates were reduced to a uniform amount of six per cent., and on the 29th to five per cent. Heavy purchases of bullion were also made in this year, but at a less expense than in the preceding one. In 1857, the privileges of the bank were extended to 1897, and its capital was raised to 182,500 shares of 1,000 francs. Of this sum, 100 millions of francs were to be advanced to the government in the course of 1859, and to be applied in payment of the uncovered balance of the Treasury. All sums charged above six per cent. for advances were to be added to the capital. It was allowed to issue 50 franc notes. In 1867 the Government is to be allowed to direct the bank to erect branches in those departments where none exist.

566. The Bank of France was prohibited by its statutes from discounting bills with less than three solvent names, and founded upon real transactions. In 1808, it was allowed to dispense

with one name, on the deposit of its own stock, or government security to the amount of the bill. In 1848, a deposit of merchandize of the value of the bill was allowed as well. In 1857, shares, and railway debentures, and obligations of the city of Paris, were allowed. It takes no obligations beyond three months. It also transacts all the other usual descriptions of banking business.

Projet pour l'établissement d'une Banque, d'une chambre d'escompte, et d'un mont-de-piété. By Balthasar Gerbier. Paris, 1673.

Premier Mémoire sur les Banques; présenté à son altesse royale, Monseigneur le Duc D'Orléans, Régent de France. By John Law. Paris, 1715.

Second mémoire sur les Banques. By John Law. Paris, 1715.

De la caisse d'escompte. By Count de Mirabeau. Paris, 1785.

Banque nationale. By Caritat, Marquis de Condorcet. Paris, 1781.

Banque nationale, précédée de l'examen des principales Banques publiques de l'Europe, et de la caisse d'escompte. By Gaudot. Paris, 1789.

Modèle d'un nouveau ressort d'économie politique, ou projet d'une nouvelle espèce de Banque, qu'on pourra nommer rurale. By Vicomte d'Aubusson. Paris, 1789.

Plan de Banque nationale immobilière. By P. M. Mengin. Paris, 1790.

Banque municipale, nécessaire à toutes les villes de commerce de la France, portant suppression de toutes les impositions, et liquidation de la dette citoyenne, de chaque municipalité. By Roch. Paris, 1792.

Coup d'œil sur le Crédit en général, et sur la Banque territoriale. By J. A. Simonde.

Considérations sur l'institution des principales Banques de l'Europe, et principalement sur celle de France. By L. B. de Montbrison. Paris, 1805.

Théorie des Banques d'escompte. By Count Garnier. Paris, 1806.

Sur la Banque de France, les causes de la crise qu'elle a éprouvée, les tristes effets qui en sont résultés, et les moyens d'en prévenir le retour, avec une théorie des Banques. By Dupont de Nemours. Paris, 1806.

Des différentes Banques de l'Europe. By Calenge.

Traité des Banques, de leur différence réelle, et des effets, qui en résultent dans leur usage, et leur administration. Translated from the German of Jean George Büsch. By François, de L. C. Paris, 1814.

Projet d'une Banque nationale, ou moyens de tirer la France de la crise actuelle. By Mathieu d'Agoult, formerly Bishop of Pamiers. Paris, 1815.

Eclaircissement sur le projet de Banque nationale, réponse aux objections faites contre ce projet. By M. Agoult. Paris, 1816.

Des Banques et de leur influence pour faciliter la circulation des capitaux, faire baisser le trop haut prix de l'intérêt, et des mesures à adopter pour que l'agriculture, l'industrie, et le commerce de la France, et des divers états jouissent de l'avantage de tels établissements. By A. Sabatier. Paris, 1817.

Du privilège de la Banque de France, considéré comme nuisible aux transactions commerciales. By J. J. Paris, 1819.

Opinion de M. l'Evêque d'Autun (Talleyrand Périgord) sur les Banques, et sur le rétablissement de l'ordre de finances. Paris, 1823.

De l'état actuel de la Banque de France, et de la nécessité d'en modifier le régime, et de diminuer son capital. By Ch. Ant. Costaz. Paris, 1826.

Des Banques, et des Institutions de Crédit en Amérique, et en Europe. By Gautier. Paris, 1829.

Des Banques d'épargne, de prêts sur nantissement, et d'escompte. By Felix de Viville. Metz, 1835.

Des Sociétés par actions, des Banques en France. By Emile Vincens. Paris, 1837.

Des Banques départementales en France, de leur influence sur les progrès de l'industrie, des obstacles qui s'opposent à leur établissement, &c. By M. d'Esterno. Paris, 1838.

Le Crédit et la Banque, contenant un exposé de la constitution des Banques Américaines, Ecossoises, Anglaises, Françaises. By Courcelle-Seneuil. Paris, 1840.

De la Banque de France, de la crise monétaire, des coupures au dessous de 500 francs. By Muret de Bord, député. Paris, 1847.

Des Banques en France, leur mission, leur isolement actuel. By Louis de Noison. Paris, 1847.

Organisation du crédit foncier. Paris, 1847.

Théorie des Banques. By Olinde Rodrigues. Paris, 1848.

Essai sur la crise financière, et les moyens de le faire cesser. By L. Rochat. Paris, 1848.

Banque nationale immobilière par l'état. Paris, 1848.

Banque agricole de crédit et de circulation. By Marestaing and L. Lapalme. Paris, 1848.

De l'organisation du Crédit foncier. By L. Wolowski. Paris, 1848.

Histoire de la caisse d'escompte, 1776-1793. By J. B. Léon Say. Paris, 1849.

Du Crédit et des Banques hypothécaires. By Charles Barre. Paris, 1849.

Cercles financiers, projet d'une institution générale de Crédit en France. By Léon Todros. Paris, 1849.

Le sol et la haute Banque. By Paul Coq. Paris, 1850.

Projet de fondation d'une Banque, et d'une monnaie universelles. By Albert Poncelin. Paris, 1850.

Des institutions de Crédit foncier et agricole, dans les diverses états de l'Europe. By J. B. Josseau. Paris, 1851.

Recueil des lois et statuts relatifs à la Banque de France depuis 1800. Paris, 1851.

De l'organisation, de l'établissement du Crédit dans l'intérêt de l'agriculture, du commerce, de l'industrie, et du travail en général. By L. H. Henry. Paris, 1861.

De la monnaie, du crédit, et de l'impôt. By Gustave du Puyode. Paris, 1852.

Traité théorique et pratique des opérations de Banque. By Courcelle-Seneuil. Paris, 1852.

Etudes sur les Banques. Nantes, 1853.

Law, son système, et son époque. By P. A. Cochut. Paris, 1853.

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Considérations sur le Crédit foncier et projet de Banque foncière. By L. A. Petit. Paris, 1853.

Traité de Crédit foncier. By J. B. Josseau. Paris, 1853.

Le Crédit foncier en Allemagne et en France. By S. Delorme. Paris, 1854.

Histoire des grandes opérations financières, banques, bourses, &c. By Capefigue. Paris, 1854.

Recherches historiques sur le système de Law. By E. Levasseur. Paris, 1854.

Théorie légale des opérations de Banque. By Eugène Paignon. Paris, 1854.

Crise monétaire, de la situation respective des grands états commerçants. By L. Muret. Paris, 1855.

De la Réforme des Banques. By Alfred Darimon. Paris, 1855.

Libre monétisation de la propriété. By Charles Boutard. Paris, 1856.

Des monts-de-piété, et des banques de prêt sur gage, en France, et dans les divers états de l'Europe. By A. Blaize. Paris, 1856.

La Banque nouvelle. Projet de réforme du système financier, ou moyen de la démonétisation de toutes les valeurs. By James Nobel. Paris, 1856.

Historical Notices of the Rise of Banking in various Countries.

AT ROME.

567. The business which is technically called BANKING seems, as far as we can ascertain, to have been invented by the Romans. It is true that there were abundance of money dealers and money lenders at Athens, and other places, but their business seems, as far as we can discover, to have been more analogous to that of those persons we call *money scribblers*, and *bill discounters*, than of those whom we call bankers. For we have seen that the business of banking technically consists in creating credits in favor of the persons who deposit money with the banker, and in paying debts by transferring sums from one account to another, as well as by making all advances in the first instance by creating a credit. This mode of doing business essentially distinguishes a banker from a *money scrivener*, or *bill discounter*, who actually advances the money itself. This seems to have been the business of the Athenian *ραπίζτραι*, and, if so, they were technically bill discounters, and not bankers.

568. The Romans, on the contrary, practised the business, which is technically called banking, exactly as we do, nor do we know when it was invented. The earliest notice we have of these banks, or *argentaria*, is in Livy IX., 40., B.C. 308, where they are spoken of as being already placed in the forum, where they always continued. But he gives no account of the method in which the bankers transacted their business. The comedies of Plautus are full of allusions to bankers and their business. He calls them *trapezite*, *argentarii*, and *danista*. We have Latin words corresponding to the method of keeping banking books. Thus, *scribere* was to give credit in the books, *rescribere*, or *perscribere*, was to transfer a sum from one account to another by means of a cheque, which was called *perscriptio*, or *attributio*. Thus, in the *Asinaria* II., 4, 34, Leonida says,—

"Abduci domum ultro, et scribit numos."

"Of his own accord he brings him home, and places the money to his account." So *acceptum ferre* was to credit a customer's account with money received, *expensum ferre* to debit it for money paid. Thus, in the *Mostellaria* I., 3, 146,—

"Ratio accepti et expensi inter nos convenit."

"The accounts between us balance." Plautus

only uses the word *mensa* to mean a bank, in two places. *Curculio* iv., 3, 4,—

"Velut decem minas dum hic solvit omnis *mensas* transit."

"As before this fellow paid me the ten minae, he had to go to every banker's;" and in the *Pseudolus* i., 3, 62,—

"Postquam isti a *mensa* surgunt."

"After these bankers broke." But he never uses *mensarius* for a banker. These persons are mentioned numberless times in his plays. So, also in Terence. *Phormio* v., 7, 29,—

"Sed transi, sodes, ad forum, atque illud mihi Argentum rursum jube rescribi, *Phormio*."

PHORM. Quodne ego perscripsi porro illis, quibus debui?"

"But, *Phormio*, be good enough to go over to the forum, and order that money to be put to my account."

PHORM. What! that for which I have already given cheques to my creditors?"

So Cicero, (*Epist. ad Atticum* xvi. 2) "qui de cccc. Hs cc presentia solverimus, reliqua rescribamus." "Of the remaining four hundred sestertia, I have paid two hundred in cash, and I shall send a cheque for the rest." So *Orat. pro Caecina* vi. "Se autem habere argentarii tabulas, in quibus sibi expensa pecunia lata est, acceptaque relata." "But he himself has the banker's books, in which are the accounts of the money paid and received."

569. Although we have seen above that Plautus uses *mensa* as the counting house of a private banker, they were never called *mensarii*. The latter were public officers of high rank, who were appointed by the State only in times of great public distress, when the plebeians were weighed down with the accumulation of compound interest, to effect a compromise between debtors and creditors, and to advance money from the treasury to citizens in distress, on the security of goods, or land, or cattle. The first appointment was made 348 B. C. (*Livy* vii. 21.) They were then five in number. On other occasions (*Livy* xxiii. 21; xxvi. 36) they were only three in number. They seem to have been instituted for very much the same purpose as the *monti di pietà*, in the middle ages in Italy, and which are still very common on the continent under the name of *monts-de-piété*. (*MONTI DI PIETÀ*.)

IN CHINA.

570. We have seen that the Romans first invented the business of "banking," namely, making instruments of credit perform the duties of money. But they did not invent bank notes. The invention of bank notes is due to the Chinese. In the beginning of the reign of Hian-tsoung, of the dynasty of Tang, about the year 807, A.D., there was a great scarcity in the country. The Emperor ordered all the merchants and rich persons to bring all their money into the public treasury, and in exchange for it gave them notes called *fei-tshian*, or flying money. In three years, however, this money was suppressed in the capital, and was only current in the provinces. In 960, A.D., Thai-tsu, the founder of the Soung dynasty, revived this practice. Merchants were allowed to deposit their cash in the public treasuries, and received in return notes called *pian-*

tshian, or current money. The convenience of this was so great that the custom quickly spread, and in 997 there was paper in circulation to the amount of 1,700,000 ounces of silver, and in 1021 it had increased to 2,830,000 ounces. At this period a company of the sixteen richest merchants were permitted to issue notes payable in three years. But at the end of that term the company was bankrupt, which gave rise to much public distress and litigation. The Emperor abolished the notes of this company, and forbade any other joint stock banks to be formed. Henceforth the power of issuing notes was kept in the hands of the government. These notes were called *kiao-tsu*, and were of the value of an ounce of silver. In 1032 there were *kiao-tsu* to the value of 1,256,840 ounces in circulation. Subsequently banks of this nature were set up in each province, and the notes issued by one provincial bank had no currency in any other. These were the first bank notes on record,—that is to say, notes issued in exchange for money, or convertible into money, and not paper money, or paper created without any previous deposit of specie. Besides these bank notes the Chinese manufactured paper money to a large extent. (*CURRENCY, PAPER.*)

Journal Asiatique. Vol I., p. 256. By Klapproth. 1822.

Popular error concerning the dates of the Bank of Venice, and the Bank of St. George, at Genoa.

571. A crowd of writers, including among them many of the greatest names in literature, have assigned the date of 1171, or even 1153, to the Bank of Venice, and that of 1407, to the Bank of St. George, at Genoa. But we shall show that these dates are both extremely erroneous. The *Bank* of Venice dates only from 1587, and the *Bank* of St. George only from 1675. To say that they were founded in the years 1171 and 1407 respectively, is exactly as erroneous as it would be to say that the Dukedom of Wellington was created in the year 1769, because the illustrious person on whom that title was conferred was born in that year. No doubt the bodies of persons, or corporations who managed these banks, were formed in the years 1173 and 1407, but the *Banks* were only founded in the years we have mentioned, namely, that of Venice in 1587, and that of Genoa in 1675.

Historical sketch of the Rise and Progress of Banking in Italy.

572. Money dealers established themselves in Italy at a very early period of the middle ages, both as money changers, and money lenders. But neither of these constitute banking. As far as we can ascertain, the business of *banking*, or dealing in credit, was revived at Florence in the early part of the 12th century. It was intimately connected with the invention of Bills of Exchange, (*BILL OF EXCHANGE*), which was practised by the Lombards, especially those of Asti, and the people of Cahors, in the department of the Lot, in France, very early in the 13th, if not in the 12th century. The business of *bankers*, however, chiefly flourished at Florence, and was one of the principal causes of raising it to so great a pitch of commercial eminence. The names of the

Bardi, Acciajuoli, Peruzzi, Pitti, and Medici, were famous throughout Europe. In 1345 the Bardi, and the Peruzzi, the two greatest mercantile houses in Italy, failed. Edward III owed the Bardi 900,000 gold florins, which his war with France prevented him paying, and the King of Sicily owed them 100,000 gold florins. The deposits of citizens and strangers with the Bardi were 550,000 gold florins. The Peruzzi were owed 600,000 gold florins by Edward III, and 100,000 by the King of Sicily, and the deposits they owed their customers were 350,000 gold florins. The fall of these two great pillars of credit involved that of multitudes of other smaller establishments, and, says Villani, (Istor: Fiorent: xii. 55) the community of Florence had never been thrown into such ruin and disorder before, and thereupon he breaks out against the folly of his fellow citizens entrusting their money to the care of others, for the love of gain. The city however recovered from this terrible disaster, and we find that between 1430 and 1433, 76 bankers at Florence lent the state 4,865,000 gold florins. At one time Florence is said to have had 80 bankers, but not any public bank.

573. In the 16th century, there were 40 great bankers at Naples. They were obliged to deposit 40,000 ducats with the government, as security, and they were bound not to go beyond the limits of the kingdom. But these precautions were in vain. They frequently failed, causing of course great distress, and, in 1575 the government determined to institute a public bank. This was the earliest public bank in Italy, being 12 years before that of Venice, and exactly 100 years before that of Genoa, both of which are erroneously placed before it. This was called the *Banco di A. G. P. et di Pietà*. Several other joint stock public banks were founded shortly afterwards, viz., the *Banco del Popolo*, in 1589; the *Banco dello Santo Spirito*, in 1591; the *Banco di S. Eligio*, in 1596; the *Banco di S. Giacomo*, in 1597; the *Banco delle Povere*, in 1600; and the *Banco de' SS. Salvatore*, in 1640. Private bankers were not abolished, but they could not stand the competition of the public banks, and ceased to exist after 1604. Whether any of these banks survived the Revolution we are not aware.

De' Banchi di Napoli, e della lor ragione. By Michele Rocco. Naples, 1785.

Sul credito, le banche, e le casse di risparmio. By Carpi.

AT VENICE.

574. It is one of the great current delusions of historians and economists, that the Bank of Venice was founded in 1171. But, in the technical sense of *banking*, this is a complete error. We have seen above that the Bank of Venice was not even the first public bank in Italy. The fact is that, in the year 1171, the Venetian republic was oppressed with great financial disorder, in consequence of wars carried on simultaneously with the empires of the east and the west. In order to extricate herself from these financial difficulties, the State levied a forced loan from its citizens, and promised them interest at the rate of 4 per cent. The stock was made transferable, and a body of commissioners was erected in 1173, to manage the transfer of the stock, and the payment of the interest. These

commissioners were called the *Camera degli Imprestiti*. Such a loan has several names in Italian, such as *compera*, *mutuo*, but the most common is *monte*, a joint stock fund. This loan, in 1173, was called the *monte vecchio*, and, in course of time, several others were contracted, and two especially were called the *monte novo*, and the *monte novissimo*. Now we have shewn in the beginning of this article that the English word *bank* is the equivalent of *monte*, and under BENBRIGGE, that this author repeatedly translates the word *mons* by *bank*, and especially calls these *monti* at Venice, by the name of the three "*bankes of Venice*." It is thus the confusion has arisen. The word "*bank*" is the translation of *monte*, but it has no relation whatever to the business of *banking*. These banks at Venice were nothing but commissioners of public debts. The very same error, as we have shewn below, prevails with regard to the Bank of St. George, at Genoa.

575. The first "*bankers*" at Venice were two Jews, who obtained leave from the Senate, in 1400, to set up banking, and this business was afterwards taken up by many of the nobility, but towards the middle of the latter half of the 16th century, many of them failed, and caused great public distress. Moreover the coinage was in a great state of confusion, from the number of clipped, and worn foreign coins in circulation, which disorganized all dealings in credit. In consequence of some political changes which took place in the constitution, the Senate prohibited the nobility from engaging in commerce, and organized the Bank of Venice in 1587.

576. Dr. Lewis, writing in 1678, says (*A large Model of a Bank*, p. 40), "As to the bank at Venice, it is not of any very long standing—it had its first rise from the dishonesty of the bankers. The bankers at Venice did just as our bankers have done here,—they got men's money into their hands at interest, and used it (as was necessary) to their best advantage; that they might make a better profit of their money, than the interest they paid, they lent it out to insolvent persons, or laid it out in desperate cases, as our bankers did. Hence, when they were disappointed, they did unavoidably break, the creditor lost his money, the common-wealth their trade: for the banker got what he could, and fled out of their territories, as ours do into the *King's Bench*."

"The States, finding such an intolerable inconvenience, as we now do, if men lent out their money, many times they lose it; if it lay dead by them, trade dwindles away by this stagnation, just in such a time as this is, the States set up their bank, and their officers became cashiers (as at Amsterdam,) for about two millions of ducats, a bank sufficient for their trade, which was kept in specie to be taken in, or paid out, as the merchants desired it, until the necessity of their affairs in the late Turkish wars, forced them to expend all the money in specie, which was lodged in the bank; now there is no money at all, neither is any money in specie ever paid out; but their bank is a perfect credit bank, and the fund is a mere imaginary thing; yet, because the fund being, as I said, four millions of ducats, which Venice is able to raise, and the states have obliged to pay, (though they are never like to pay a farthing of it to the end of the world) all

men accept this credit as money, nay, since it hath been in this condition, the very credit hath been 20 per cent. more than cash in specie; all merchants trading thither can tell you credit in the bank is much better than cash in the chest; the reason is what I have first mentioned. Credit in bank is more safe, more portable, and more transferable than money in specie, and so of greater value, as gold is better than silver.

"Not many years since credit in Bank at Venice, (as our merchants can remember) was better than cash in specie, by more than twenty in the hundred, which the states found inconvenient for their trade: the States could not by any law suppress this excessive exchange, though they made it capital to take 20 per cent., till at last they were advised by a sagacious merchant to bring money in specie into the bank to answer their credit, this presently brought down the exchange: hence some merchants here thought the credit of the bank was impaired, because the exchange fell, when it was quite contrary, the bank paid money in specie instead of writing off credit from one to another, this made the exchange less." This passage is repeated with a few verbal alterations, in a pamphlet called *England's glory by a Royal Bank*, published in 1694.

577. This organisation of the BANK of Venice took place in 1587. The merchants were invited to deposit their money in an office managed by the Commissioners of the Public Debts. They received a credit in the bank's books equal to the actual weight of the bullion deposited, for which they could always demand an equal quantity of bullion at any time, or transfer it to any one else. Thus a uniform standard of payment was insured. It was enacted that all bills on Venice should be paid in bank money. By this means the bank money bore always a premium, compared with the current money, of about 9 per cent., called an *agio*. This bank did no business on its own account, and as it professed always to keep the bullion in its vaults, it is clear that the credit it created was exactly equal to the bullion displaced. This is an example of what is called the "currency principle."

578. Although the bank transacted no commercial business of its own, the temptation of using the money deposited in its vaults was too strong to be resisted, and on certainly two, if not three occasions, it suspended payments. Besides the suspension alluded to in Dr. Lewis's tract above quoted, in 1678, it suspended payment again in 1691, and again from 1717 to 1739, when the State applied the money in its vaults to the purposes of war. Mr. Cantillon also says that on one occasion it tried to raise a loan by creating credits in the Bank's books, but this was done to such an extent that the credits fell to a discount of 20 per cent., as compared with specie. To remedy this, the State was obliged to mortgage a part of its revenue to raise a fund of real current specie, to purchase these transfer credits, which had the desired effect of bringing the credits to par. The author does not give the date of this transaction. (*Analysis of Trade, &c.*, 1759, p. 185). The Bank was destroyed by the French in 1797, the same year with that of Genoa.

THE BANK OF ST. GEORGE, AT GENOA.

579. The origin of public debts at Genoa is even earlier than those of Venice. In 1148, the Ligurian Republic conquered Almeria and Tortosa, in Spain, and found themselves greatly encumbered with debt. Public loans were created by means of terminable annuities, which were secured on the taxes and customs duties. In process of time these loans, or *mutui*, greatly increased, and, in the 14th century, it was thought that something must be done to reduce them to greater order. In 1346, it was proposed to consolidate them, but the plan was not carried out then. Towards the end of the century the republic was torn with internal dissensions, and in 1396, Antoniotto Adorno, then doge for the fourth time, thought it would be advisable to apply to a foreign power for protection. Application was accordingly made to Charles VI., of France, who sent Jean Le Maingre, Marshal of France, as Governor. At this time there were a great number of different offices for the management of these loans, which were also called *compere*, and for the management of the revenue, called by a variety of different names. The names of the public creditors were entered in a book called *cartulario*, the credit was called *colonna*, and the creditor, *colonnante*. The debts were divided into shares of 100 lire each, and made transferable at will. At length, in 1407, these loans fell into great disorder from the political disturbances. The Governor called a council of the Ancients, together with the *Uffizj di Provisiione e della Moneta*. By their advice, eight of the most highly esteemed citizens were appointed a committee to devise a plan to extricate the republic from its difficulties. All the public debts were consolidated, and all the public offices were formed into one company, which took the name of the *Ufficio di San Giorgio*. The old loans at 7 and 8 per cent. were paid off, and a new single stock at 6 per cent. was created. The company gradually acquired great privileges and power, they were entrusted with the collection of the revenue, and were endowed with civil and criminal powers in all matters relating to the taxes.

580. In 1453, Pietro Fregoso was doge. The republic was distracted with internal dissensions, and the expense of the war with Mahomet II., who was besieging Constantinople, and the Genoese settlement of Pera. The government ceded to the Company of St. Giorgio Pera, and its other colonies in the Black Sea, in full property. In the same year it was unable to maintain its authority over Corsica, and it also ceded it to the Company, with full power to equip all forces necessary to preserve these possessions. The Company was so embarrassed by the expenses of these acquisitions, that it was unable to pay any dividend on its shares in 1456, and it obtained the Pope's leave to suspend their payment for three years. In 1479, it was further released from paying any stated dividend in future, and allowed to divide whatever profits there might be for the year. In the same year a distinguished citizen, named Lodovico Fregoso, took Sarzana by stratagem from the Florentines, and the state being too weak to defend it, ceded it to the Company. In a short time it also ob-

tained Serravalle, Castelnovo, Ortonovo, and S. Stefano. In 1512, Pieve del Pieco, with the territory attached to it, was also given over to it. In 1514, it acquired Ventimiglia and its territory, and in 1515, Levanto and its territory. "In short," says Machiavelli, (*Istorie Fiorentine*, lib. VIII.) "the Company being always wealthy and well managed, was able to make constant advances to the city, which was always in difficulties. The city first conceded the customs to the company, as security for the loans, then she assigned towns, castles, and territories, so that the company had at that time, under its administration, the greater part of the lands and cities of the Genoese dominions. Every year it sent its deputies, selected by vote, without the interference of the state. And the citizens greatly preferred the rule of the company to that of the state, on account of the tyranny of the latter, and the excellent regulations of the former. The company did not interfere in the political contests itself, but it was powerful enough to compel the successful party to respect its laws. Thus this company exhibited an extraordinary spectacle, which no philosopher had ever imagined, namely, within the same state, and among the same citizens, there was liberty and tyranny, justice and licence, and order and disorder, for the company alone maintained in the city many ancient and venerable customs,—and if it should happen, as was extremely probable, that the company should obtain possession of the whole city, Machiavelli expected that Genoa would become even more illustrious than Venice. Notwithstanding this, the company found that the administration of these territories was ruining its finances, and in 1562 it restored them to the state. In 1539, the debts which had been redeemable were changed into perpetual annuities, the operation was called *magno contratto di consolidazione*, and the company was put in full possession of 76 kinds of taxes, and customs duties.

581. All this time the Company was in no sense whatever a bank, nor ever called by that name. It was called the *Casa*, or *Ufficio di S. Giorgio* or the *Amministratori delle Compere di S. Giorgio*, and its financial business was to collect the taxes, and pay the dividends upon their shares. In 1674, they presented a petition to the Government, to be allowed to set up a bank, which was granted in 1675. And this is the true date of the formation of the BANK of St. George. It was decreed that by means of the Bank or its credit, or by means of the books of S. Giorgio and their notes, all bills of exchange, and mercantile obligations, however small, and all payments due in the city from all parts of the world should, be paid. The Bank's notes were made the only legal tender in the city for all payments above 100 lire, and they were to be received in payment of all taxes at the treasury. This Bank in a very short time acquired great credit, and its business increased so rapidly, that it was obliged to open four additional offices.

582. This Bank was at the height of its power and reputation when Law visited Genoa, and there is every reason to believe was what furnished him with the model of what he afterwards attempted to carry out on a much greater scale in Paris, and which ended in so great a catastrophe. The Bank continued to flourish till Genoa was

captured by the Austrians in 1746. It had advanced 15 millions of lire to sustain the war, and it had spent not only its own money, but also 1,333,088 lire of its depositors. The Austrians plundered it, and it was obliged to suspend payments. In 1750, the Senate ordered all the note-holders to inscribe their names in a register, called *Monte di Conservazione*, the debts were capitalised in shares of 200 lire, which were to be gradually redeemed by lot. Other of its obligations, called *paghe*, were also due to the amount of 64,000 lire. These were also capitalised, as a *Monte Paghe*, on the same terms as the others, and the shares were made transferable like stock. In 1777, there were only 2,251 shares, and 7,663 *paghe* unpaid, and they were then converted into public stock.

583. In 1794, Genoa was involved in the war of the Revolution, and it was taken by the French in 1797, who immediately abolished the Company of St. George. The public debts were placed under the protection of the honor of the State, and the circulation of its notes prohibited. In 1799, the sale of all its effects was ordered in order to discharge its obligations, but commerce was so utterly prostrated, that its property was sold at a very low value, and the proceeds were insufficient to satisfy all its creditors. Thus ended this extraordinary corporation. Attempts were made in 1804, and in 1814, to resuscitate it, but they failed.

Leggi e regolamenti di S. Giorgio. Genova, 1605.

Relazione sugli ufficii, casa, luoghi, entrata e redditi delle compere di S. Giorgio fatto al Governo. 1597.

Relazione sopra S. Giorgio fatto al Governo nel 1681.

These two treatises are in MS. in the possession of Signor Carlo Cuneo of Genoa.

Saggio sopra la banca di S. Giorgio. By Count Luigi Corvetto. Genoa, 1798.

Discorso intorno alle compere di S. Giorgio. By Gerolamo Serra, in the 4th volume of his History of Genoa.

Memorie sopra l'antico debito pubblico, mutui, compere, e Banca di S. Giorgio in Genova. By Carlo Cuneo. Genoa, 1844.

IN SWEDEN.

584. The Bank of Stockholm, founded in 1668, is remarkable as being the first, which, according to the testimony of Law, (*Mémoires sur les Banques*, p. 623. Edit. Guillaumin. 1851). Voltaire, (*Histoire de Charles XII.* p. 33., Edit. 1785.), and Hume, (*Life*, by J. H. Burton, Vol. II., p. 459) invented bank notes in Europe. The money of Sweden was of copper, and very inconvenient to make large payments with. A cart was required to carry a moderate amount of it. To remedy this inconvenience a public bank was established, in which the merchants deposited their copper money, and received bank notes in return for it, which were used in payments all through the country. Payments were also made by transfers in its books. In 1726 an edict enacted that the notes should be taken in payment of bills of exchange. This bank, although first instituted as one of deposit only, seems afterwards to have done commercial business, "For," says M. Gustave du Puyode, (*De la Monnaie*,

§c., p. 136.) "it lent, not only on bullion and other merchandise not subject to deterioration, but also on real property, to the amount of three-fourths of its value." In 1752 this had gone on to such an extent that it gave rise to great alarm; the bank's funds were deeply engaged in such loans, and the owners of the property were unable to redeem them. In 1754, the debtors were allowed to pay their obligations by annual instalments of of five per cent. We have read somewhere, but lost the reference, that when the exchanges were against the country, this bank used to suspend payments to prevent the drain. We much regret that so little is known in this country of the Political Economy of Sweden, where the third chair of the science was founded, and where it is said to have been cultivated with considerable diligence.

IN HOLLAND.

585. In Cisalpine countries the business of BANKING seems to have been first practised by the Dutch. And it was from them that several English writers, in the beginning of the 17th century, acquired their knowledge, and wished to introduce the business into England. Malynes, in his *Consuetudo, vel Lex Mercatoria*, published in 1622, explains their method of doing business. They did not issue notes, nor had they invented cheques. When a merchant had sold any of his credit in the banker's books, it was his custom to go and tell him to whom the credit was to be transferred. The inconvenience of this was obvious, and they subsequently either invented cheques, or adopted them from the Italians. John Law, writing in 1715, says that cheques were not then used in England, and describes the superiority of the Dutch method of doing business. At the end of the 16th century, it was contemplated to establish a bank of deposit at Amsterdam, but the intention was not carried out till 1609, when a considerable number of bankruptcies took place. An account of the Bank of Amsterdam is given by Adam Smith, Book IV., c. 3. It received all coins, foreign and domestic, at their actual weight in bullion, and gave the depositors credit in its books to that amount. A small deduction was made for the expense of management. This credit was called bank money, and as it always represented the real weight of bullion, it was usually at an agio of about 9 per cent. above the current worn, clipped, and degraded coins. It was enacted that all bills upon Amsterdam, above the value of 600 guilders, should be paid in bank money. The bank also received gold and silver bullion at a discount of 5 per cent., and gave the depositor a transferable receipt enabling the bearer to demand the bullion at any time within six months, upon re-transferring to the bank an amount of bank money equal to the credit originally given for the bullion, and paying one-fourth per cent. for silver, and one-half per cent. for gold bullion. If the term expired without payment of this premium, the bullion belonged to the bank at the price of the credit given.

586. So far all is clear. But Adam Smith then goes on to make a statement which seems to us to be perfectly unintelligible. He says, "The person who, by making a deposit of bullion, obtains both a bank credit and a receipt, pays his

bills of exchange as they become due with his bank credit, and either sells or keeps his receipt, according as he judges that the price of bullion is likely to fall or rise. The receipt and the bank credit seldom keep long together, and there is no occasion they should." Surely there is some extraordinary error here. How can a man, upon a deposit of £100, receive both a transferable receipt, and also a bank credit for an equal amount? That is as much as to say that, for every deposit, a man received credit to twice the amount. This part of Adam Smith's account of the bank's transactions, seems to us to be wholly unintelligible.

587. The Bank of Amsterdam professed to be a pure Bank of Deposit, that is, to make no use of its funds, but to keep in its vaults an equal amount of coin or bullion to all its obligations. Its stability was severely tested in 1672, in the French invasion, when every one rushed to demand his deposit. They were found perfectly intact, and of course this greatly raised the credit of the Bank. It became the great warehouse for bullion for foreigners, as well as natives. Notwithstanding its professions, and the solemnities with which each successive magistracy at Amsterdam swore to keep the treasure intact in the Bank's vaults, John Law shrewdly suspected that they did lend it out, and this was fully proved in 1794. They had for a very long series of years, notwithstanding all their oaths, been advancing large sums to the government, and to the Dutch East India Company, as well as to different municipalities in Holland. The first shock was given to its credit in 1790. In that year, (*Davies, Hist. of Holland, Vol. III. p. 557. Edit. 1851*) the East India Company found themselves in great difficulties. For many years, they had been suffering a heavy annual loss, and had only been supported by clandestine loans from the Bank, contrary to the oaths of its Directors. In December, 1790, the Bank found itself in imminent peril from these perpetual advances, and it suddenly announced that it would in future fix the price at which it would pay out the silver held in deposit. The first price fixed inflicted on its holders a loss of 10 per cent., and it refused to pay any deposits of less than 2,500 florins. This, which was nothing less than an open bankruptcy, excited the utmost astonishment and alarm. Its receipts immediately fell from 5 per cent. above par to one-half discount. This of course brought a run upon it, and after a short time the order was rescinded. The public, who at that time had no knowledge of its illegal proceedings, and had no ostensible cause of distrust, was pacified for the time. In 1794, the French entered Amsterdam, and upon investigating the affairs of the Bank, found that it had advanced nearly 11 millions of florins to the East Indian Company, and various cities. This of course was fatal to the Bank, and its notes immediately fell to a discount of 16 per cent.

588. We need not enter into any further details of the origin or history of banking in other countries, as what we have already given sufficiently illustrates the different principles adopted, which is our main object. While we have shewn the extreme erroneousness of the current opinions regarding the early origin of some of the most celebrated banks, we may say that the Bank of Barcelona was in reality the

oldest in Europe. It was founded, Capmany tells us, in 1401, by the municipality, for the use of the merchants. It was a bank both of deposit and discount, and the property of the city was pledged for the security of the depositors. It was thus founded 186 years before that of Venice, and 274 years before that of St. George. The Bank of Hamburg was founded in 1619, on the model of that of Amsterdam. The only peculiarity in it was that it gave credit on the deposit of jewels, as well as bullion. It is said to be nearly the only one of the old banks in Europe which still survives. For further information see **BILL BROKER; CREDIT MOBILIER; CURRENCY, PAPER; EXCHANGE BANKS; LAND BANK; LAW; MONTE DI PIETA; SAVINGS BANK.**

BANK MONEY.—The first Banks of Deposit, such as those of Venice, Amsterdam, Hamburg, &c., received coin and bullion from the merchants, and gave them a credit in their books for an equal quantity of bullion by weight, payable on demand. These credits were called Bank Money, *Moneta di Banco*. All bills of exchange drawn upon the merchants of these cities were made payable in this Bank Money, because it insured a uniform standard of payment. These banks, however, did not discount business, they merely received a certain quantity of bullion, which they professed to keep in their vaults, and gave an equal credit for it. Consequently this transaction did not increase the quantity of the currency. It has been supposed that our English banks, which do not issue notes, are similar to those Banks of Deposit. But this is a very grievous error; because our banks not only create credits, or bank money, by the purchase of bullion, but by the discount of bills of exchange. In fact, by far the larger portion of what are called *deposits* in banks, are merely *credits created by the discount of bills*, though they are invariably treated by English writers as deposits of cash. How erroneous this is, is shewn in the article **BANK**.

BANK NOTE.—A Bank Note is a promissory note issued by a banker, or banking company, and is usually in the form of a promissory note payable to bearer on demand. It is the highest and most powerful instrument of credit, and is more generally regarded as a substitute for money than any other.

2. Although a Bank Note is usually in the form of a promissory note of the banker payable to bearer on demand, yet it is quite clear that the *form* of the instrument is immaterial, any engagement of the banker, or liability, is equally effective. The Bank Charter Act of 1844, was passed for the express purpose of preventing the creation and issue of Bank Notes. That Act only contemplated Bank Notes in the form of promissory notes payable to bearer on demand. It was soon seen that the Act might be evaded by bankers giving their obligations in forms which were not Bank Notes. Thus, a cheque upon a banker payable to bearer on demand, and accepted by him, is, to all intents and purposes, a Bank Note. Many country banks had begun to issue obligations in such a form, which was a clear contravention of the intention of the Bank Act. In order to put a stop to this, the Stamp Duties Act, Statute 1854, c. 83, s. 11, defines what shall

be considered a Bank Note. It says, "In order to prevent evasions of the regulations and provisions of the said respective Acts, it is expedient to define what shall be deemed to be Bank Notes within the meaning thereof respectively. Be it enacted, that all bills, drafts, or notes, (other than notes of the Bank of England), which shall be issued by any banker, or the agent of any banker, for the payment of money to the bearer on demand; and all bills, drafts, or notes so issued, which shall entitle, or be intended to entitle the bearer or holder thereof, without endorsement, or without any further or other endorsement than may be thereon at the time of the issuing thereof, to the payment of any sum of money on demand, whether the same shall be so expressed or not, in whatever form, and by whomsoever such bills, drafts, or notes, shall be drawn, or made, shall be deemed to be Bank Notes of the banker by whom or by whose agent the same shall be issued, within the meaning of the Banking Acts."

3. Bank Notes are one of the varieties of promises to pay, one of the two grand divisions into which all instruments of credit are divided. (**PROMISSORY NOTES**). It is alleged that they were first used in Sweden. (**BANK OF SWEDEN**). Promissory notes were not recognized as part of the law merchant in this country till a very long time after bills of exchange, although they were in common use in Holland in the early part of the 17th century. Malynes, in his *Lex Mercatoria*, published in 1622, describes the bills obligatory, or of debt, then in use among the merchants of Amsterdam, Middleborough, and Hamburg, and strongly advocates their introduction into England. But the banks in Holland at that time did not use them. (**MALYNES**). It was about 1673 that the goldsmiths or bankers began to shorten their notes into the present form, but it was long before the law would sanction them, and when the Bank of England was founded in 1694, it was necessary to insert a clause to legalize its notes, and to make them transferable by indorsement.

4. The subject of Bank Notes might no doubt be discussed under the general terms **CREDIT**, or **PROMISSORY NOTES**, but there has been so much controversy respecting them, and their nature, that it will be more convenient to discuss them separately, and to examine the opinions of some writers respecting them. To investigate and understand thoroughly the nature of Bank Notes, and the functions they perform, will involve some of the fundamental conceptions, and several of the greatest subtleties in Political Economy, and a full discussion of the subject will clear our way to strike at some very prevalent fallacies.

5. We have pointed out (**PRELIMINARY DISCOURSE; CURRENCY; TURGOT**;) the immense service Turgot did to the science of Political Economy by establishing the proposition that money is a separate and independent article of value. The great fallacy which he successfully combated was that money was the *sign* or *representative* of value, (**MONTESQUIEU**), and it was upon this fundamental misconception that John Law's theory of money is founded. Because he argued this way, that money being only the *sign* or *representative of value*, or the representative of material wealth, it was of no consequence of what material money was made, and that there might

be as much money as there was material wealth, and consequently that as much paper money might be created as would represent all the material wealth of the country. (Law).

6. Turgot struck at the root of this fallacy by shewing that money is not a *sign*, or *representative* of value, but an independent article of value itself. He says, of gold and silver, "Ils ne sont point, comme bien des gens l'ont imaginé, des signes de valeurs; ils ont eux-mêmes une valeur. S'ils sont susceptibles d'être la mesure et le gage des autres valeurs, cette propriété leur est commune avec tous les autres objets qui ont une valeur dans le commerce," (*Sur la formation et la distribution des richesses*, § 45), and this doctrine has been approved of, and adopted by all economists of any note since his day. This principle is the foundation stone of Political Economy. But Turgot left his work incomplete; for it is not enough to shew that money is an article of independent value, but it is also necessary to shew *how much* money is required. And that we have done in our *Elements of Political Economy*, and in the article CURRENCY. We have shewn that when an exchange of equal values in commodities takes place there is no room, or necessity, for money, but that when an *unequal* exchange takes place, then a certain quantity of money is required to make up the balance. Hence, the quantity of money required is the quantity of *debt* that would ensue if there was no money, and thus it is in its nature a general instrument of credit, as Burke and Adam Smith saw. Hence, we not only shew that money is an independent quantity, but we also shew the quantity of it that is required.

7. But the very same authors, Turgot, and J. B. Say, who have done so much to lay the corner stone of Political Economy with respect to money, are the very ones who have done incalculable mischief, and are the authors of immense error with respect to credit, and of exactly the same nature, too, as what they delivered the world from with respect to money.

8. Up to a comparatively recent time it was always customary to consider an instrument of credit as *representing* goods; thus a bill of exchange was universally treated as *representing* the goods which it was exchanged for. This fallacy, however, is now slowly and gradually dispersing. Mr. Thornton, in his essay upon Paper Credit, was among the first to notice it, and at the present day it is only very careless and ill informed writers who speak of bills of exchange, as *representing* commodities. It is perfectly well understood that there is no connection whatever between a bill of exchange and the goods it purchases, or is exchanged for. Nor does a bill of exchange *represent* money, because there is no connection between it and any particular money, but it is only an engagement to pay money, and derives its whole value from the belief that at a particular time it will be exchanged for money. Thus, the clouds of error slowly disperse, and by toilsome marches progress is at length effected.

9. But this identical fallacy, which was first dispelled with respect to money, and next with regard to bills of exchange, is still almost universally prevalent with regard to Bank Notes. Bank Notes are a promise to pay money on

demand, and a banker is bound to have money to pay them with on demand, and consequently they are supposed to *represent* money. But this is a *profound delusion*. Bank Notes do not *represent* money at all. Instruments of credit are not *signs*, or *representatives* of value, as even the best writers too often say, but they are independent articles of value themselves.

10. In this article, as well as those on *BILLS OF EXCHANGE, CREDIT, and PROMISSORY NOTES*, we shall endeavour to complete the work begun by Turgot, with respect to money, by extending its arguments to instruments of credit.

11. When two ideas are superficially similar, but really distinct, the best way to exhibit the difference, is to bring them into the closest contrast. We shall, therefore, enforce the doctrine just stated, by contrasting Bank Notes with another class of negotiable instruments, with which they are very often confounded, but from which they are nevertheless fundamentally distinct; and upon the confusion of which Law's theory of money is based. These other negotiable instruments are Bills of Lading, and Dock Warrants, (*BILL OF LADING; DOCK WARRANT.*) which have some points of resemblance with bills of exchange, and are often supposed to be of the same nature. The instrument of credit, however, which a Bill of Lading, or a Dock Warrant, most resembles is a Bank Note, and we shall now contrast them.

12. When property is deposited in the warehouse of a dock, the owner of it receives a paper called a Dock Warrant, which he can transfer by endorsement to any one else, who can endorse it over to any one else, and so on. Or a shipmaster gives a receipt for the goods he receives on board, called a Bill of Lading, which the owner of the goods can transfer by endorsement to any one else, and so on. And any holder of the Dock Warrant, or Bill of Lading, may have the goods on demand. These instruments *represent* goods. When a customer deposited money in a Bank, he received an equal amount of Bank Notes, which formerly he could transfer by endorsement to any one else, who might endorse them to any one else, and so on, and the holder of the note might demand payment of it on demand from the banker. In modern times, it is true, the endorsement of a Bank Note has fallen into disuse, but when they were introduced it was indispensable, and it in no way affects the question we are discussing. Now, because the holder of a Bill of Lading, or a Dock Warrant, can obtain the goods on demand, and the holder of a Bank Note can obtain money on demand, and they are all negotiable instruments, it is a very common opinion that these instruments are all of the same nature, and that as Bills of Lading *represent* goods, so Bank Notes *represent* money.

13. It is, nevertheless, one of the most fundamental conceptions in Political Economy, that these instruments though presenting some points of superficial resemblance, are yet fundamentally distinct. And to understand the nature of this distinction is the basis of the theory of money. The confusion of these two things is at the root of two very opposite schools of error, for it is upon not comprehending this distinction that the schemes of basing paper currency upon land, upon commodities, and upon the public funds, are founded,

which is Law's Theory of Money, which has led to so many frightful catastrophes, and which is at the root of much of the vice of American banking. But the same fallacy is also at the root of a very opposite school of error—namely, that of the currency principle. One party wish to confine bank notes to the exact amount of specie they displace, the other party wish to extend the issue of paper money, so as to *represent* all values, as well as specie, or to mobilize all values, as their jargon is.

14. In order to exhibit clearly the fundamental distinction between these two species of paper instruments, we shall shew how each arises.

When a man delivers goods to another, to carry, or to keep for him, it is termed in law a **BAILEMENT**. Though the bailee, or the person to whom the goods are entrusted, grants a receipt for them, which may be transferable by indorsement, and he may engage to deliver them to any person to whom this receipt may be lawfully transferred, the receipt and the goods constitute *one* property. The bailee has no property in the goods, but merely the duty to keep them safely, and deliver them to the true owner on demand. The actual property of the goods goes with, and is inseparable from, the Bill of Lading, or the Dock Warrant, which is therefore truly said to *represent* those goods, and the property of those very goods is transferred with every transfer of the document. If the bailee of the goods were to convert them to his own use, he would be a thief, and indictable for the crime.

But when a customer deposits money with a banker the case is entirely different. As soon as the money is paid into the bank, the property of it passes to the banker, and the receipt, or note, he gives for it is totally severed from it. The customer transfers the property of the money to the banker, and receives in return an instrument of credit, which is *not* a title to any specific money, but only a general right to demand money. And this bank note circulates independently, and derives its value from the general belief that it may be exchanged for money if required. It is in no respect whatever a *bailement*, but a *sale* of money to the banker. When a customer deposits money with a banker the real nature of the transaction is this: It is a sale of money to the banker, with the right reserved of demanding the re-sale of an equal quantity of money at will. And there is, in fact, a *new* property created, namely, the instrument of credit, or promise to pay, which may pass through a hundred hands upon the mere faith that it may be exchanged for money if required. It is, therefore, quite clear that this bank note does not *represent* money in the same sense that the former documents represent goods, but that it is exchangeable for money, which is the very thing which gives everything else value.

15. Now, if the banker was a mere bailee of the money, *i. e.*, merely entrusted with it for the purpose of keeping it safe for his customer, as he is very frequently with other securities, deeds, &c., there would be no fresh property created, and he would have no right to use the money for his own purposes. And there is a very severe Act of Parliament enacting very heavy penalties against any banker who converts to his own use property which is merely entrusted to him. But as soon as the money passes into his possession,

the property of it vests absolutely in him, and he is entitled to use it in any manner he pleases for his own profit. The bank note, or instrument of credit he gives is totally severed from any connection with any specific money. Thus we see the fundamental distinction which creates an impassable wall of partition between instruments of credit, and bills of lading or dock warrants, is, that the latter are inseparable from and *represent* goods, and are not separate articles of property, the former are expressly severed from, and do *not represent* any money, but are separate and independent articles of property. Bank notes and bills of exchange are *credit*; bills of lading and dock warrants are *not credit*.

16. That bank notes are articles of independent value is illustrated by the well known fact that they expel coin from circulation, because they perform the same duty at less expense. A bank note is a substitute for coin, too often a dangerous one, it is true, but yet one which has universally the power of expelling its rival. But nobody ever considered a bill of lading as a *substitute* for the goods. An excessive issue of paper diminishes the value of the gold currency, but nobody ever thought that a bill of lading, or a dock warrant, diminishes the value of the goods they represent. A bank note is used instead of coin, but nobody ever thought of using a bill of lading, or a dock warrant, instead of the goods. People in possession of bank notes think them equivalent to money, but nobody ever thought a bill of lading equivalent to a cask of sugar or a chest of tea. People put bank notes into their purses believing them to be cash, because they perform the functions of cash, but nobody ever put a bill of lading into his tea-pot thinking it was tea, or could perform the functions of tea; or put a dock warrant into a goblet and quaffed it off as Bordeaux! Hence we obtain this as one of the fundamental conceptions of Political Economy, that bank notes are separate and independent entities, bills of lading and dock warrants are nothing but tickets on goods, and have no separate existence whatever.

17. The preceding considerations are enough we hope to satisfy our readers that bank notes are independent entities. This is one immense step gained. We must now inquire why they have value. Now, if we were to ask 1,000 persons why a bank note has value, the whole would with one voice reply, Because it is believed to be exchangeable for money or goods at the will of the holder. And this is undoubtedly the true answer. But if we were to ask the same 1,000 persons why gold money has value, the probability is that 999 would reply, Because a great deal of labor has been bestowed on producing the gold of which it is formed. That is, they would say that gold money has *intrinsic value*, and that the bank note is the *representative of value*. That is, they would say that a bank note has value because it can be *exchanged* for something, and gold money has value because it has cost labor. **CERTAINLY NOT**, say we. Such an answer as this is directly in contradiction to all modern science. The laws of modern science enable us to say at once that the reason why bank notes have value, and the reason why gold money has value, *must* be the same. If the *labor* which has been bestowed upon producing it is the cause of the

value of gold, modern science affirms that whatever labor has been bestowed upon must have value, and of course the value of a thing must be proportional to the labor expended upon producing it. Thus the oyster shell in which a pearl is found, must be of the same value as the pearl itself, because they are both obtained with the same labor. If labor is the cause of value, a diamond of a very poor quality, which is found after the search of a year, must be 365 times more valuable than a diamond of the first water which is found after the search of a day. Now these are the consequences which modern science inevitably deduces from the doctrine that labor is the cause of value. The manifest absurdity of these consequences entirely overthrows the doctrine that labor is the cause of value. If labor is the cause of value, whatever labor has been bestowed upon must have value; therefore, if any one were to go and rear a great pile of stones in the middle of Salisbury Plain it would be of great value! How often do we see a thing upon which a great deal of money or labor has been bestowed, turn out of no value! Now it is perfectly clear that it is *not* the labor which has been expended in producing gold which gives it value, but its exchangeability, or the eager desire for it among men. Gold has not value because men labor to produce it, but men labor to produce it because it has value. *It is not the labor that confers the value, but the value that attracts the labor.* Hence we see that gold money and bank notes have value for exactly the same reason,—their *exchangeability*, the one, however, possessing this quality to a greater degree than the other.

18. Now money in itself is of no direct use to mankind; it is neither meat, nor drink, nor clothing, nor any other utility, it is merely the means of obtaining them. When a man has performed services to others, and requires no direct utilities himself at the time, money is the form in which he preserves the record and the amount or value of those services, so as to be able to obtain an equivalent utility at any future time he pleases, and of what nature he pleases. It is thus **GENERAL CREDIT**, but a bank note is **PARTICULAR CREDIT**. A bank note, or any other instrument of credit, is a valuable thing, because there is some one bound to exchange something for it at a certain time; money is general credit, and has value because every one will exchange something else for it.

19. Thus we obtain one of the great fundamental conceptions of political economy, that money and instruments of credit of all sorts, are all homogeneous quantities, they all represent debt, or services due to the owners of them, and the aggregate of them forms the **CURRENCY**.

20. We may now investigate another part of the question which has been much clouded by controversy, but a due inquiry into which will well lay bare the foundations, or first principles of political economy. Are bank notes capital? And are they an addition to the wealth of the country? No one doubts that money is a portion of the wealth, or capital, of the country, and many writers admit that bank notes are capital to the individual who utters them. But many writers who admit them to be capital to the person who utters them, would deny that they are any addition to the wealth of the country. Because they

would argue that as they are debts, or liabilities of the issuers, they must be *subtracted* from his other property, and consequently they are not any addition to the wealth of the country.

21. Now, how any article whatever can be capital to an individual, and not capital to the country at large, is, we confess, to us wholly unintelligible. It certainly would appear that the capital of the country must be the aggregate of the capitals of each individual; and how a thing which is admitted to have an existence in the one case, can suddenly vanish into nothing, when it is reckoned in another form, seems to us to be wholly incomprehensible. Nevertheless, such is the doctrine of some well known writers.

22. This view is so clearly and manifestly erroneous with respect to commercial bills of exchange, and all liabilities payable *in futuro*, and is so fully treated of under **BILLS OF EXCHANGE** and **CREDIT**, that we refer to those articles, and shall say no more about them here. But, with respect to Bank Notes and obligations payable on demand, the case is not all so clear, and is much more subtle, and will require more examination. And yet, curiously enough, the instruments of credit which are of the more subtle nature are often admitted to be capital, while those about which there is no real ambiguity at all, are universally denied to be so—at least in modern times.

23. But, in truth, the real explanation of the case touches the very first principles of Political Economy and its true conception as a science.

Every science whatever depends upon certain fundamental conceptions, and, in stating the facts of the science, it is essential that they be stated in a peculiar manner, and in one in harmony with the fundamental conceptions of the science. And true scientific tact greatly consists in perceiving how the facts are to be stated. Now, as we contend that the true fundamental conception of the science of Political Economy is, that it is the science of exchanges, it follows that every question in Political Economy must be stated so as to be in harmony with its fundamental conception. Now, to state the question of instruments of credit, as it is usually stated by the most eminent writers, is to state it as a question of *addition and subtraction* and not of an *exchange*. Now, an instrument of credit is an exchangeable quantity, and is to be treated like any other independent quantity whatever. And as we have shewn that any economic entity may be used and employed as capital, (**CAPITAL**), it follows manifestly that an instrument of credit may be capital as well as anything else.

24. We shall find that this view of the fundamental conception of the science will throw much light on the early stages of Political Economy, and that this is the philosophical rock upon which the Physiocrate school made shipwreck.

The Physiocrats maintained that all wealth came from the earth, (**PRELIMINARY DISCOURSE; PHYSIOCRATES**), and that there were but three kinds of productive laborers:—Firstly, hunters, fishermen, and breeders of domestic cattle; secondly, agriculturists properly so called; and thirdly, miners. These alone they called productive laborers because they increased the quantity of material productions. All other industry, such as manufacturing, they called *sterile* or

unproductive, because it only changed the form of existing products. And they argued this way. They admitted the necessity and utility of this unproductive industry, but they said that this kind of labor did not add to the wealth of the world, because, in the process of manufacture, an equal value was *consumed* to what was *produced*; and, therefore, the result was not more valuable than before. And it was upon this view that they based their doctrine that the *produit net* of land, was the only addition to the wealth of the country.

Now, this doctrine was felt to be erroneous, and was superseded by the doctrine that labor was the source of all wealth, which, though more specious and plausible, yet has been equally fatal, because it has led to the erroneous doctrine that labor is the *cause*, and the only cause of value, and the followers of that school have been unable to see that any object could have value except through the means of labor having been bestowed on it, and they measure the value of a thing by the labor expended upon producing it. Now, the fact is that wealth consists in the acquisition of objects which possess the quality of exchangeability, no matter whether they have been produced by much or by little labor, although it is generally true that objects of great value are scarcely ever produced without great labor. Still it is not the labor which gives them their value, but simply their exchangeability. Nor is their value in any way dependent upon their durability. Whenever two things are freely exchanged in the market they are of equal value, no matter whether one is permanent and the other evanescent. The doctrine, however, of the second school of Political Economy superseded that of the Physiocrats, and it was seen that the labor of the manufacturer or the artisan is as truly *productive* labor as that of the agriculturist, or the herdsman and hunter.

25. But the true philosophical objection to the Physiocratic doctrine is not the one that superseded it, namely, that labor is the source of wealth, but it is this that they stated the facts as a question of *addition and subtraction*, whereas they ought to have made it one of exchange. The food, &c., consumed by the workmen was given in exchange for their labor, and they were of equal value, because they were exchangeable. The food was an article of independent value, and the labor was an article of independent value, and the laborer gained by exchanging his labor for food, clothes, &c., and the manufacturer gained by exchanging his money for labor, because when the article is completed he sells it for more than he pays for it, and the difference is his profit. And this is also the true philosophical objection to the method of stating the question of credit, in general use among Political Economists, because they make it a question of addition and subtraction, whereas it must be stated as a question of exchange. Thus, when a banker issues his notes, they set off the quantity of his assets against the amount of his liabilities, and *subtracting* one from the other they make the result the amount of his property. But this is the identical error which was fatal to the Physiocrats. The true way of looking at it is that both the "assets" and the "liabilities" are independent quantities. The credit of the merchant and the credit of the banker are each of them independent and sub-

stantial property, and for a banker to give his notes in exchange for a bill of exchange, is to exchange one species of property for the other, and not to cancel one amount by setting it off against the other. Each instrument of credit is an independent entity, capable of being exchanged, through a larger or smaller area, as the case may be. It is similar to the exchange of a large and inconvenient Bank Note for smaller and more convenient money.

26. And economists who utterly repudiate and sneer at the notion that credit in general is capital, fully admit that Bank Notes are capital. Though how one form of credit can be capital, and another form not capital, is to us a doctrine which is unintelligible. Thus, Mr. Mill, whose doctrines on credit are fully examined elsewhere, (CREDIT; MILL, JOHN STUART,) maintains that Bank Notes are productive capital. (*Principles of Political Economy*, Book III, chap xxii. § 2.) "The value saved to the community by thus dispensing with metallic money is a clear gain to those who provide the substitute. They have the use of twenty millions of circulating medium which have cost them only the expense of an engraver's plate. *If they employ this accession to their fortunes as productive capital, the produce of the country is increased and the community benefited as much as by any other capital of equal amount.* * * When paper currency is supplied, as in our own country, by bankers and banking companies, the amount is almost wholly turned into *productive capital*." And we might quote many other passages to shew that Mr. Mill treats, and quite correctly too, bank notes as capital. And Mr. McCulloch makes exactly the same admission (*Art. Banks, Commercial Dictionary*.) "Those who issue such notes coin, as it were, their credit. They derive the same revenue from the loan of their written promises to pay certain sums that they would derive from the loan of the sums themselves, and while they thus increase their own income, they at the same time contribute to increase the wealth of the society." That is, in this passage he admits Bank Notes to be productive capital. Though both these writers when they treat of credit in general, peremptorily deny that it has any productive efficacy whatever. (CREDIT.)

27. Dr. Whewell (*Nov. Org. Renovat: Chap V. On certain characteristics of Scientific Inductions*) points out many instances in the progress of the different Inductive Sciences, where classes of phenomena of apparently the most remote and unconnected character, have all suddenly been accounted for, by the discovery of the true conception or theory of the science. And this he calls the *Consilience of Inductions*. And he says that "No example can be pointed out, in the whole history of Science, so far as I am aware, in which this consilience of Inductions has given testimony in favor of an hypothesis afterwards discovered to be false." Now, correlative to this Consilience of Inductions we may have a *CONSILIENCE OF REFUTATIONS*, by which errors of apparently the most remote and unconnected character, are simultaneously disproved by obtaining a true conception. As soon as we obtain a clear and firm grasp of the conception of exchange, the fundamental error of the Physiocratic school of Political Economy, and of the preva-

lent doctrines on the subject of credit, are at once made clear and manifest. As soon as we obtain a clear and firm grasp of the true conception of the nature of money, the errors of the currency principle and of Law's theory of paper currency are at once made clear and manifest. And Political Economy abounds with similar instances.

28. And this is the great master-subtlety of Political Economy—this is the true *pons asinorum* of the subject—that instruments of credit, though they must be expressed to be payable in money generally, are yet expressly forbidden to be appropriations of any particular sum of money. They, therefore, circulate independently on the belief that they may be exchanged for money, just as money circulates on the belief that it may be exchanged for commodities. And as money does not represent commodities, although it is exchangeable for them, so instruments of credit do not represent money, though they are exchangeable for it. Consequently they are, therefore, to be regarded in the same light as any other independent quantities whatever. In fact, credit is itself property, of the same nature as any other immaterial capital. But bills of lading or dock warrants are not independent quantities, but mere tickets on the goods they represent, and therefore they never can exceed in quantity the property to which they belong. But instruments of credit not only may, but do actually exceed greatly—five or six times at the least—all the cash in the country. For if a banker, for example, keep only cash enough to meet the payment of the notes which may usually be demanded from him, that is enough to support the credit, or the exchangeability, or value, of all the rest. No doubt, it may be said, that if all his notes were thrown upon him for payment at once, he could not pay them all, and their value would fall; but the very same thing may be said of all other property. The value of all property depends upon only a certain quantity of it being offered in exchange at any one time. If all the land in England were suddenly offered for sale at the same time, where would its value be? Or if all the shipping in the country were offered for sale at the same time, where would its value be? Thus the value of instruments of credit depends upon exactly the same laws as the value of any other property, namely, that only a certain portion of them are offered for exchange at any one time.

29. But it may be said that these views depend upon a particular method of stating the facts, and that if they are stated in another way, which they are capable of being done, it will lead to different conclusions. And this is undoubtedly true; but then the very same thing may be said of all science. All science depends upon a particular method of stating the facts. And, therefore, it may in some sense be said that all science is a matter of *opinion*. And this cannot be denied. But it is in this very thing, that true philosophical tact consists—out of several possible modes of stating facts, to select that particular one which is to be made the true basis of the science. And having once obtained this fundamental conception, it is to be inflexibly and rigorously adhered to, and all others are to be rejected. And this is exactly what has happened

in the early stages of all the sciences, namely, that their early cultivators did not distinctly perceive what their true fundamental conceptions were. But in the greater part of the physical sciences, and in mechanics especially, men of competent judgment, after full discussion and deliberation, have finally and unanimously agreed what are the true fundamental conceptions of each, and have uniformly adhered to them in their treatment of the subject. And this, in our opinion, is the true meaning of that much abused phrase, COMMON SENSE. It is not any plausible explanation that may seem on a superficial view to suit the facts, but that solemn and final opinion which men of competent judgment, after full deliberation, finally arrive at and agree to. No man can tell what common sense on any subject is, until he is fully master of it. And that, and that only, is the true fundamental conception of a science, which enables us to penetrate to its innermost recesses, which solves the most obscure problems in it, and unravels ALL its mysteries.

30. The fact is, a science is not unlike that amusing puzzle for children, a *Labyrinth*. There are a number of side entrances all exactly similar in appearance. But after a certain time, all of them, except one, terminate in nothing, some have ingot nearer to the centre than others. But there is one, and one only, which leads us into the heart of the puzzle. So it is with a science. There are at the threshold of every science several conceptions which present, perhaps, no peculiarity to determine us in favor of any one of them, rather than the others, and which, to the untrained mind may seem all indifferent. But there is, nevertheless, only one true golden *filum Labyrinthi*, which can lead us to the innermost recesses of Nature, and which that one is, is only to be determined by men properly qualified to do it. The way to construct a science is not to take some principle, which perhaps may be plausible enough on a superficial view, and to follow that to its consequences, and then to reject all facts which do not agree with it, but a philosophic mind brooding over the facts of the science, heaped together in wild, and apparently hopeless confusion, at length, perhaps, in some happy moment discerns the true fundamental conception which reduces everything to harmony and order.

31. Nor is it always the men of the greatest intellect who succeed in selecting the true idea. It often comes, no one can tell how, or when, by some seemingly happy chance, and scarcely ever without many unsuccessful attempts. How long it was in the slow gestation of ages, before men of the highest capacity could seize the true fundamental conceptions of mechanical science. There is nothing more melancholy in looking back into the depths of antiquity than to see the wrecks of the labors of the mightiest intellects. There is nothing more sad than to see the demigods of humanity struggling in the death grasp of false conceptions.

32. Now, after mature consideration, and after having carefully examined what preceding writers have said upon the subject, we have come to the deliberate judgment that the true fundamental conception of Political Economy is that it is the science of exchanges, and that this conception is the only one which will enable us to resolve all its phenomena. Consequently, having

adopted this view, and following the example of all the great masters of Physical Science, we maintain that the true object and limit of the science is to discover the laws which govern the phenomena of exchanges. (PRELIMINARY DISCOURSE.) Moreover, having adopted the idea of exchangeability as the true meaning of value in Political Economy, it follows that all conceptions contrary to it are delusions and snares, and must be inexorably rejected, and further, that all modes of stating the questions in Political Economy, which are not in harmony with this conception, are erroneous. Hence all expressions which are inconsistent with the idea of exchangeability must be carefully guarded against, as sources of confusion. Now there is one expression which is in constant use by almost all economists, and which concentrates in itself the roots of most of the errors in the science—and that is, *intrinsic value*. The expression *INTRINSIC VALUE* is the CURSE and the BANE of Political Economy. It is the combination of two absolutely inconsistent and contradictory conceptions. This was pointed out by Nicholas Barbon, in 1696, (BARBON), and in much more recent times with irresistible force by Mr. Samuel Bailey. (BAILEY.) As soon as we grasp the conception that value is an *external relation*, and not a *quality*, the expression *Intrinsic Value* is seen to be palpably absurd. And this is in truth the great conception which sheds a blaze of light over the whole science, and which enables us to understand and comprehend the real existence of entities in Political Economy, which can neither be *handled*, nor *seen*, but which may yet be *measured*, such as intellectual capital, copyrights, the goodwill of a business, credit, and all incorporeal property. (PRELIMINARY DISCOURSE; CAPITAL.)

33. We shall now examine into certain opinions which are held respecting bank notes, by an influential—nay, the most influential—sect at the present day. Up to 1832, the immense majority of writers and speakers considered that bills of exchange, and other instruments of credit, form part of the currency, or circulating medium, of the country. About that time, however, it began to be denied by some persons that bills of exchange are currency, and this opinion gathered strength till in 1840 it appears to have been adopted by the majority of the commercial witnesses. We shall not in this place inquire into the general conception of the term currency, as that is done in its proper place. (CURRENCY.) We shall here only inquire into certain opinions held respecting bank notes by these writers.

34. This sect then, of whom we may consider Lord Overstone and Colonel Torrens to be the most prominent advocates, maintain, not only that bank notes are the highest and most efficacious instruments of credit—which everybody admits—but that there is a positive distinction in kind between bank notes and all other forms of credit, such as bills of exchange, cheques, &c., and that specie, and bank notes payable to bearer on demand, alone—to the exclusion of all other forms of credit—constitute the money or currency of the country. They also use the terms money and currency as synonyms. Lord Overstone, then Mr. Loyd said, in his evidence before the Committee of the House of Commons, in 1840, Q. 2663-4, “The precious metals converted into

coin constitute the money of each country. That coin circulates sometimes in kind; but in highly advanced countries it is represented, to a certain extent, by paper notes, promising to pay the coin to bearer on demand, *these notes being of such a nature in principle that the increase of them supplants coin to an equal extent*. When these notes are in use, the metallic coin, together with these notes, constitutes the money or currency of that country. Now this money is marked by certain distinguishing characteristics; first of all, that its amount is determined by the laws which apportion the precious metals to the different countries of the world; secondly, that it is in every country the common measure of the value of all other commodities, the standard by reference to which the value of every other commodity is ascertained, and every contract fulfilled; and thirdly, it becomes the common medium of exchange for the adjustment of all transactions equally at all times, between all persons, and in all places. Now I conceive that neither deposits nor bills of exchange in any way whatever possess these qualities. In the first place, *the amount of them is not determined by the laws which determine the amount of the precious metals in each country*. In the second place, they will in no respect serve as a common measure of value, or a standard by reference to which we can measure the relative values of all other things; and in the next place, they do not possess that power of universal exchangeability, which belongs to the money of the country.”

35. Any one who examines the preceding extract will perceive that it consists of a series of dogmatic assertions and arbitrary assumptions, which it is only possible to meet by counter assertions, and we shall not investigate the grounds of these here, because that is done under CURRENCY. We only quote the passage as an expression of opinion which is adopted by many influential persons. We shall now quote from a writer who supports his assertions with reasons, and we can, therefore, examine into the validity of those reasons. Colonel Torrens says, (*The principles and practical operation of Sir Robert Peel's Act of 1844 explained and defended*. Third Edition, p. 1.) “While Lord Overstone and Mr. Norman maintained, in accordance with the principles established by Adam Smith and Ricardo, that the money or currency of the country consists of coin and bank notes immediately convertible into coin, Mr. Tooke and his followers advanced the *novel* doctrine, that bank notes, immediately convertible into coin, do not possess the properties of money, that they are, in common with cheques and bills of exchange, mere forms of credit.” Now we have shewn under CURRENCY, that this assertion of Colonel Torrens is absolutely without foundation. Mr. Tooke did *not* introduce a new doctrine; on the contrary, up to 1840 the immense majority of writers and speakers were of that opinion, and, in fact, the restriction of the term currency to money and bank notes exclusively, is the novel doctrine.

36. Colonel Torrens, therefore, having commenced his work with an unfounded assertion, then gives us his definition of money. “Money may, therefore, be defined as consisting of those tangible objects which can be passed from hand to hand, which law, or usage having the effect of

law, has established as measures of value, as media of exchange, and as equivalents by the tender and acceptance of which *payments are made and transactions finally closed.*" He also says, (p. 79, *First Edition*,) "The terms, money and currency, have hitherto been employed to denote those instruments of exchange which possess intrinsic or derivative value, and by which, from laws or custom, debts are discharged and transactions finally closed. Bank notes, payable in specie on demand, have been included under the term as well as coin, because, by law and custom, the acceptance of the notes of a solvent bank, no less than the acceptance of coin, liquidates debts, and closes transactions; while bills of exchange, bank credits, cheques, and other instruments by which the use of money is economised, have not been included under the terms money and currency, because the acceptance of such instruments does not liquidate debts, and finally close transactions." Colonel Torrens has also quoted, in support of his opinion, the judgment of Lord Mansfield in the case of *Miller v. Race*.

37. The poet sings—

"Ay me! What perils do environ
The man who meddles with cold iron."

So are the perils which environ the unprofessional writer who meddles with law cases. There is no man who has a professional knowledge of the law of instruments of credit, who will not at once perceive the fallacy of Colonel Torrens's opinions. The judgments of the judges are always to be interpreted with special reference to the circumstances of the case, and every case, to be rightly understood, necessarily requires a considerable amount of knowledge which does not appear on the face of it, but which every lawyer would bring to the study of it, and which it is indispensable to the right understanding of it. Moreover, every lawyer reads the judgments in a doubting spirit. In the first place many of the old reports are of very doubtful authority; we are not certain of their accuracy. But a still greater source of error arises. In former times judges were much more in the habit of giving general judgments, and entering into collateral points; in modern times they confine themselves strictly to the point at issue, and sedulously avoid opening up collateral points which are not before them. No lawyer reads the judgment of any judge as an infallible gospel. We shall find that these remarks forcibly apply to the case we are going to discuss. In the first place we are not certain of the accuracy of the report. In the second place, it is such a judgment as we are perfectly certain that no judge in the present day would deliver. For if Lord Mansfield delivered it as reported, it not only decides the special point in issue rightly enough, but it also contains several general and sweeping assertions, which we shall shew are very far indeed from being accurate, but which are not necessary for the decision of the case, and which were not specially argued.

38. We shall, therefore, explain to our lay readers such preliminary considerations as are essentially requisite to comprehend the true bearing of the case of *Miller v. Race*. There are three species of property known and recognized by the common law of England, the transfer of which is subject to distinct rules. Firstly, Goods and Chattels or commodities; secondly, Money;

and thirdly, *Choses in action*, or claims, or liabilities, such as debt. Now, with respect to the first description of property, it is the well known rule of the common law that the property in a personal chattel cannot be transferred to a buyer however innocent, by a person who does not himself possess it, *except by a sale in market overt*. That is to say, that if a thief steals my property and sells it to somebody else privately, who buys it honestly and gives a full price for it, yet I can recover it from the innocent buyer. If, however, the property is sold in market overt the case is different, the buyer may keep it against the true owner. But with respect to money, although the true owner might recover it from a thief, he cannot recover it from a person who has come by it honestly in a fair sale. Thus, if a man steals my money, and goes and buys goods with it in a shop, I cannot recover it from the shopkeeper who takes it in the way of his trade. Thus, the possession and the property are inseparable. But, with respect to the third species of property, *choses in action*, or debts, it is an inflexible rule of the common law that they cannot be transferred at all. Thus the transfer of bills of exchange, which are debts, is in direct contravention of the common law. But in course of time the common law adopted the *Lex Mercatoria*, and by the *Lex Mercatoria*, or *custom of merchants*, Bills of Exchange were treated like money in so far as this—that the property in them passed like money. Thus, though if they were stolen the true owner might recover them from the thief, yet if he passed them away for value, *bonâ fide* to an innocent holder, that innocent holder for value acquired the property of them, and might retain them against the true owner, and enforce payment from all the parties liable. Thus Bills of Exchange were assimilated to money in this important respect, that the possession and the property in them were inseparable.

39. But the courts of law for a long time refused to recognize promissory notes as within the law merchant. By the Act founding the Bank of England, their notes were legalized and made assignable by indorsement, (Act, Statute 1694, c. 20, s. 29). But this did not extend to other promissory notes. In the cases of *Clerke v. Martin*, (2. L. Raym, p. 767), in 1701, and *Buller v. Cripps*, (6. Modern Reports, p. 29), in 1703, the court held that promissory notes were not assignable, or indorsable over, within the custom of merchants. In consequence of these decisions the Act, Statute 1704, c. 8, was passed, by which it was enacted that promissory notes in writing made and signed by any person, or persons, body politic, or corporate, or by the servant, or agent of any corporation, banker, goldsmith, merchant, or trader, promising to pay any other person, or the bearer, any sum of money, should be assignable and indorsable over in the same manner as inland bills of exchange. But, though this Act conferred upon promissory notes certain of the privileges and qualities of bills of exchange it made no mention of other modes of transferring the property, and there was no case to decide whether their property passed with the possession to an innocent holder for value, as in the case of money and bills of exchange. Thus there was no case to decide how the property of a stolen note would pass.

40. Such was the state of the law when, on the 11th December, 1766, William Finney, who was the owner of a Bank of England note, sent it in a letter by post to a friend in the country. On the same night the mail was robbed, and the note in question was carried off. On the 12th of the same December, the note came into the possession of the plaintiff, for a full and valuable consideration, in his usual course of business, and without any notice or knowledge of its having been stolen.

Mr. Finney, on the 13th of December, being informed of the robbery, applied to the Bank of England to stop payment of the note. Some time afterwards the plaintiff applied to the bank for payment of the note, and for that purpose delivered it to the defendant, who was a clerk in the Bank, but the defendant, Race, refused either to pay it, or to redeliver it to the plaintiff.

The plaintiff brought an action against the defendant to recover possession of the bank note, and the jury found in his favor, subject to the opinion of the court, "whether, under the circumstances of the case, the plaintiff had a sufficient property in this bank note, to entitle him to recover in the present action."

Thus, the point in issue before the court was simply this—"Whether an innocent holder for value of a stolen bank note acquired a property in it by delivery, and was entitled to retain it against a former owner from whom it had been stolen?"

It was admitted that the usage of trade was that bank notes were paid and received as cash, and that they passed from one person to another by mere delivery like cash, and that the possession always carried with it the property.

It was contended by Sir Richard Lloyd, for the defendant, that the action was not for the money due upon the note, but for the note itself, the paper, the evidence of the debt. That the note, or the goods, as he called it, was the property of Mr. Finney, who was the real owner, who could not be divested of his property in it, except in the manner in which he might lose it in any other chattel. He denied the holder's (merely as holder) right to the note against the true owner, or that possession gave a right to it.

The counsel for the plaintiff, Mr. Williams, maintained that the holder of a bank note, upon a valuable consideration, has a right to it, even against the true owner. That the circulation of these notes vests a property in the holder, who comes to the possession of it upon a valuable consideration.

We shall now give Lord Mansfield's judgment, with the italics as they stand in 1. Burrows, p. 456.

"After stating the case at large, he declared that at the trial, he had no sort of doubt, but this action was well brought, and *would lie* against the defendant in the present case; upon the *general course of business*, and from the *consequences* to trade and commerce, which would be much incommoded by a contrary determination.

"It has been very ingeniously argued by Sir Richard Lloyd for the defendant. But the whole fallacy of the argument turns upon comparing Bank Notes to what they do not resemble, and what they ought not to be compared to, *viz.* to goods, or to securities, or documents for debts.

"Now they are *not* goods, not securities, nor documents for debts, nor are so esteemed; but are treated as *money*, as *cash*, in the ordinary course and transaction of business, by the general consent of mankind; which gives them the credit and currency of *money*, to *ALL* intents and purposes. They are as much *money*, as guineas themselves are; or any other current coin, that is used in common payments *as money* or *cash*.

"They pass *by a will* which bequeaths all the testator's money or cash; and are *never* considered as *securities* for money, but as *money itself*. Upon Lord Ailesbury's will £900 in Bank Notes was considered as *cash*. On *payment* of them, whenever a receipt is required, the receipts are always given *as for money*; not *as for securities*, or *notes*.

"So on bankruptcies, they cannot be followed as identical and distinguishable from money; but are always considered as *money* or *cash*.

"It is a pity that reporters sometimes catch at quaint expressions that may happen to be dropped at the bar or bench, and mistake their meaning. It has been quaintly said 'that the *reason why* money can not be followed is *BECAUSE* it has *no earmark*,' but this is *NOT* true. The *true* reason is upon account of the *currency* of it, it cannot be recovered after it has passed in *currency*. So in case of money stolen, the true owner cannot recover it, *after* it has been paid away fairly and honestly upon a valuable and *bonâ fide* consideration: but *before* money has passed in currency, an action may be brought for the *money itself*. There was a case in 1. G. 1. at the sittings, *Thomas v. Whip*, before Lord Macclesfield, which was an action upon assumption, by an administrator against the defendant, for money had and received to his use. The defendant was nurse to the intestate during his sickness, and being alone conveyed away the *money*. And Lord Macclesfield held that the action lay. Now this must be esteemed a *finding* at least.

"Apply this to the case of a *Bank Note*. An action may lie against the *finder*, it is true, (and it is not at all denied); but *not after* it has been *PAID AWAY IN CURRENCY*. And this point has been determined even in the infancy of Bank Notes; for 1. Salk. 126. M. 10. W. 3. at *nisi prius*, is in point. And Lord Chief Justice Holt there says it is, 'by *reason of the course of trade*, which creates a property in the assignee or bearer.' (And the 'bearer' is a *more proper* expression than *assignee*.)

"Here an innkeeper took it, *bonâ fide* in his business, from a person who made an appearance of a gentleman. Here is no pretence or suspicion of collusion *with the robber*, for this matter was strictly inquired and examined into at the trial, and is so stated in the case, 'that he took it for a *full and valuable consideration*, in the *usual course of business*.' Indeed if there had been any collusion, or any circumstances of *unfair dealing*, the case had been much otherwise. If it had been a note for £1,000 it might have been suspicious; but this was a *small* note, for £21 10s. only, and *money given in exchange* for it."

Lord Mansfield then commented upon certain of the cases which had been cited, and shewed that they did not apply or were misreported, and continued:

"A Bank Note is constantly and universally, both at home and abroad, treated as money, as cash, and paid and received as cash; and it is necessary for the purposes of commerce that their currency should be established and secured.

"There was a case in the Court of Chancery on some of *Mr. Child's* notes, payable to the person to whom they were given, or bearer. The notes had been lost, or destroyed, many years. *Mr. Child* was ready to pay them to the widow and administratrix of the person to whom they were made payable, upon her giving bond with two responsible sureties (as is the custom in such cases) to indemnify him against the bearer, if the notes should ever be demanded. The administratrix brought a bill; which was dismissed because she either could not, or would not, give the security required. No dispute ought to be made with the bearer of a cash note; in regard to commerce and for the sake of the credit of these notes; though it may be both reasonable and customary, to stay the payment, till inquiry can be made whether the bearer of the note came by it fairly or not."

Judgment was then given for the plaintiff.

41. Now by this decision it was established that Bank Notes resembled money in this respect, that an innocent holder for value might retain them, even though stolen, against the former owner. And this decision has been confirmed by a host of cases since that time. And it is now a well settled principle of English law, that a person taking any instrument of credit *bonâ fide*, and for full value, is entitled to recover on it. Thus, the doctrine which had always been held as regards bills of exchange was by this decision held also to apply to Bank Notes. But further than this, the principle of the decision has been extended to all negotiable instruments; it also applies to bills of lading, and dock warrants; it is well settled by a series of cases that the property represented by bills of lading and dock warrants passes to an innocent holder for value, exactly in the same manner as bills of exchange.

42. Such is the true legal bearing of this case, and we see that it lends no force whatever to the doctrine that bank notes are cash, or currency, to the exclusion of bills of exchange. So far from it, it proves the very reverse, because if the principle of transfer by delivery, is the criterion of currency, the rule was applied to bills of exchange long before it was applied to bank notes. And, if that be the criterion, bills of lading and dock warrants are currency as well, a conclusion which must be rejected. Moreover if Colonel Torrens is willing to accept the judgment of courts of law, as to what is, and what is not money, he must admit that deposits in banks are currency, or money, because it has been several times held in the courts of equity, that a balance at a banker's passes under the word money in a will. Now the sect of economists to which Colonel Torrens belongs, strenuously repudiate the doctrine that deposits in a bank are currency.

43. But though the general principle decided in the case of *MILLER v. RACE* is undoubtedly well settled law, that by no means holds good of all the sweeping assertions attributed to Lord Mansfield in the judgment as reported in Burrows. The assertions attributed to Lord Mansfield are

so extraordinary, that we cannot believe that he has been correctly reported. He himself, in the course of his judgment, as reported, says that Lord Chief Justice Holt must have been misreported in one of the cases cited. And we firmly believe that the same thing has happened in this case. We entirely refuse to believe that he ever could have uttered the extraordinary assertions attributed to him. For he is actually made to say that bank notes are not only like money in some respects, and that they were as readily received as cash, in the course of trade, but he is made to say that they were the same as money to "ALL intents and purposes. That they are as much money as guineas themselves," and that they were "never considered as securities for money, but as money itself." And he is made to adduce several cases in which bank notes were treated as money. But we refuse to believe that so eminent a judge could ever have said that they were the same as money to ALL intents and purposes, or that they were as much money as guineas themselves. For this very manifest reason, a debtor could compel a creditor to receive guineas in payment of a debt, but at the time this judgment was given, no debtor could compel a creditor to receive £1,000,000 of Bank of England notes, in payment of a debt of one sixpence. The money of a country is that which a debtor can compel a creditor to take in discharge of a debt. Guineas were legal tender, but bank notes were not legal tender. The acceptance of them was purely voluntary, like the acceptance of any other instrument of credit whatever. Edmund Burke was a better lawyer than the reporter who attributed such a doctrine to Lord Mansfield. He says in an oft-quoted passage, (*Reflections on the Revolution in France*, Vol. I p. 468-9. Bohn's Edit.) speaking of the French revolutionary assignats; "At present the state of their treasury sinks more and more in cash, and swells more and more in fictitious representation. When so little within or without is now found but paper, the representative not of opulence, but of want, the creature not of credit but of power, they imagine that our flourishing state in England, is owing to that bank paper, and not the bank paper owing to the flourishing condition of our commerce, to the solidity of our credit, and to the total exclusion of power from any part of the transaction. They forget that in England NOT ONE SHILLING OF PAPER MONEY OF ANY DESCRIPTION IS RECEIVED BUT OF CHOICE; that the whole has had its origin in cash actually deposited (in which assertion Burke is mistaken); and that it is convertible at pleasure, in an instant, and without the smallest loss, into cash again. OUR PAPER IS OF VALUE IN COMMERCE, BECAUSE IN LAW IT IS OF NONE. IT IS POWERFUL ON 'CHANGE, BECAUSE IN WESTMINSTER HALL IT IS IMPOTENT. IN PAYMENT OF A DEBT OF TWENTY SHILLINGS, A CREDITOR MAY REFUSE ALL THE PAPER OF THE BANK OF ENGLAND. Nor is there amongst us a single public security, of any quality or nature whatsoever, that is enforced by authority." Nor did the Bank restriction Act of 1797 venture to make Bank Notes legal tender, it only enacted that if a debtor offered them in payment of a debt, he should not be arrested; it did not take away any creditor's right to demand and be paid in coin. But it

enacted that payment of debts in Bank Notes was to be deemed payment in cash, if offered and ACCEPTED as such. Now what was the use of this enactment, if Bank Notes were already as much money as guineas to all intents and purposes? But, in fact, Bank Notes were not declared to be legal tender between persons, until the Bank Charter Act of 1833. Now if they were already identical with guineas, what was the use of this enactment?

44. But Lord Mansfield is further made to say that bank notes were not *securities* for money, but *money itself*. But how could this be when the bank note was a *promise to pay* on the face of it? And every holder of a bank note had a right to demand payment of it in guineas. How was it different in kind from any other promise to pay? No doubt it enjoyed a higher degree of credit than other promissory notes, and probably no one ever doubted that he could get cash for it if he chose, but that did not make it money. It was manifestly on the very face of it a security for money, though one that was never doubted.

45. Thus we see that the arguments for drawing a fundamental distinction between bank notes, payable in cash, and other instruments of credit, so as to make one currency and the other not currency, fail entirely. *And we do not hesitate to affirm THAT IT IS NOT POSSIBLE TO FRAME A DEFINITION OF CURRENCY SO AS TO INCLUDE BANK NOTES CONVERTIBLE INTO CASH ONLY, (and not such as are inconvertible and declared by law to be legal tender), AND TO EXCLUDE OTHER INSTRUMENTS OF CREDIT.*

46. Promissory notes were first introduced into this country by the goldsmiths of London, who issued them in exchange for money deposited with them by their customers, and also in the discount of bills of exchange. They were at first treated exactly as bills of exchange and were passed by indorsement. But it was long before they were recognized by the law merchant. They were first technically called *bills obligatory*, or *bills of credit*, or of *debt*, (*BILL OBLIGATORY*), and it was provided by the Act, Statute 1694, c. 20, s. 29, founding the Bank of England, that its bills obligatory and of credit, i.e., its bank notes, might be assigned and assignable to any person or persons who should voluntarily accept the same, and so by such assignee *toties quoties* by indorsement thereupon; and that such assignment, and assignments, so to be made, should absolutely vest and transfer the right and property in and unto such bill, or bills obligatory, and of credit, and the monies due upon the same; and that the assignee or assignees should and might sue for and maintain an action thereupon in his own name.

This, however, did not extend to the notes of private bankers, which were for some time longer without the pale of the law, and Lord Chief Justice Holt was terribly put out when an action on a promissory note was brought in his court. (*PROMISSORY NOTE*). By the Act, Statute 1704, c. 8, the quality of negotiability, which had been conferred on the notes of the Bank of England, was also conferred on the promissory notes of all other persons, that is, they were made transferable by indorsement. In process of time, however, as a bank note was a promise to pay cash to bearer on demand, and consequently everyone thought that taking the note of a wealthy banker which

might be cashed at a moment's notice, was as good as cash itself, the custom of indorsing bank notes fell into disuse; and, we find in the case of *Miller v. Race* above-mentioned, that it was the acknowledged usage of trade that bank notes were passed by mere delivery from hand to hand without indorsement. But, though from the sense of security entertained, the ceremony of indorsement was dispensed with as superfluous, it must be carefully observed that that in no way altered the character of the instrument, and the receiver of the note did it entirely at his own peril, and ran exactly the same risks as he did if he took any other instrument of credit without indorsement. (*PROMISSORY NOTE*).

47. But though we entirely deny that there is any distinction in kind between bank notes payable in cash, and which are not made legal tender by law, and other instruments of credit, yet they are the most powerful form of credit for good or for evil, and like all other forms of power, while they are capable of being used so as to produce immense benefits, their abuse will produce the direst calamities. Any instrument of credit whatever dispenses with the use of coin in any transaction in which it is used, and bank notes among the rest. We have shewn that it is a general law of the currency that when two species of currency circulate together of the same nominal amount, but of different actual values, the least valuable will drive out and expel the more valuable. From this general law it follows that if bank notes be allowed to be issued of the same denomination as any coin, they will certainly expel that coin from circulation. Experience amply verifies the truth of this law. It has been invariably found in all countries that bank notes drive coin of the same denomination out of circulation. Consequently, instead of the solid universal credit of money, there comes to be substituted the precarious and particular credit of individuals, as the sole circulating medium of a country. A condition of things manifestly fraught with danger. Consequently no bank notes should be permitted to be issued of the same denomination as the standard metallic unit of money. The same remarks are no doubt to a certain extent true of bank notes of a higher denomination. A bank note of £5, or £100, as certainly dispenses with and displaces five sovereigns, or 100 sovereigns, as a £1 note does one sovereign. But then there are not nearly so many transactions in which a £5 note or a £100 note is required, as where a sovereign is required. Consequently if £1 notes are prohibited, the necessities of commerce and trade will compel people to keep a certain amount of specie in the country, and thus the currency in general will be leavened with a sufficiency of metal to enable it to preserve its stability.

48. Bank notes, then, are to be regarded in every point of view as independent entities, and the creation and issue of them has exactly the same effects as the importation of so much money. The immense advantage of them consists in this, that if any great work is to be effected they can be created and issued at once, without delay, and at comparatively no expense, whereas, to obtain an equal amount of metallic money, commodities must first be exported to obtain it. The enormous advance of England in industrial works in

the last quarter of the last century was chiefly effected by means of bank notes, and without bank notes they could never have been effected in so short a space of time. So the prodigious strides made by Scotland during the last century were chiefly due to the formation of powerful banks. And these bank notes, so long as there was real demand for them, were exactly equivalent to so much real additional capital, as we have seen above that Mr. Mill acknowledges.

49. But unfortunately, while the creation of a certain amount of bank notes is a great blessing, the issuers of them deriving so much profit from their manufacture, and, in fact, finding themselves in the possession of so much wealth, without labor, have scarcely ever been able to restrain themselves within due limits. It is quite clear that being independent entities, if the quantity issued exceeds certain limits, like everything else under similar circumstances, their value will diminish, as compared with metallic money. There is no instance in any country in which any persons, public or private, having been entrusted with the power of issuing bank notes, unlimited in amount and denomination, have not abused it, and produced such calamities as to make men almost curse the very power itself. In most countries, therefore, it has been found absolutely necessary to limit the power of issue either, or both, in amount and denomination. In England the Bank of England was limited at first in amount, but not in denomination; it was afterwards unlimited in both. The private bankers were unlimited in both till 1775, and the consequence was, specie was driven out of many parts of the country, where notes circulated for 6d. In that year bank notes, under £5, were suppressed. This restriction being temporarily suspended during the bank restriction act, was productive of enormous calamities to the country from 1810 to 1816, and was again imposed. The Bank of England itself having immensely abused its power of issue, and having brought itself to the very verge of bankruptcy on several occasions, was again put under restraint by the Bank Charter Act of 1844, and all other banks which issued notes at that period were also strictly limited, and all new ones were prohibited. And so it has been found necessary to adopt some measures of limitation in almost all other countries.

50. But the actual amount of the limitation and the method of enforcing it, as well as the criterion of depreciation, have been the subjects of much controversy and difference of opinion. Some writers maintain that bank notes should strictly be limited to the exchange of bullion, that the bullion they are exchanged for should be rigidly kept in the vaults of the bank, so that for every £5 note in circulation there should actually be five sovereigns in the bank. This is what they call the CURRENCY PRINCIPLE. Upon this principle the banks of Venice, Amsterdam, Sweden, Hamburg, and others, have been founded, or professed to be. Thus the credit they created was exactly equal to the bullion they possessed. But these banks never did any discount business at all. IT IS ABSOLUTELY IMPOSSIBLE FOR A BANK, CONSTRUCTED ON THE CURRENCY PRINCIPLE, TO DO DISCOUNT BUSINESS. For it is the very essence of a "bank," to discount bills of exchange by creating credit. It is, there-

fore, impossible to apply the currency principle to the Bank of England without prohibiting it from discounting bills of exchange. In some banks their issues are limited to a certain proportion to the bullion they have in reserve. In the Bank of England the issues are limited to a fixed amount based upon public securities, with an additional amount exactly equal to the quantity of bullion in the bank. In America it is common to require, in addition to the convertibility of the note, that an equal value of some other property, such as public securities, or a mortgage upon land, be deposited with some public office, by all issuers of notes. All these regulations have been devised to check the almost universal tendency Banks entrusted with an unlimited power of issue have had, to endanger their own stability by excessive issues of notes. But although in many cases these restrictions undoubtedly do confer additional security on the notes, they must be considered more as expedients to compel banks to do what they have very seldom had the resolution to do, namely, to raise the rate of discount during a foreign drain of bullion. The neglect of this has been the cause of some of the most severe commercial crises in our history. (DISCOUNT; CRISIS, COMMERCIAL.)

BANNATYNE, DUGALD.

Observations which enter into the commerce in grain, and into the measures for supplying food to the people. Glasgow, 1816.

BANNEFROY.

Mémoire sur la mendicité. Paris, 1791. G.

BANNISTER, SAXE.—Formerly Attorney-General of New South Wales, has communicated several papers to the *Statistical Journal*.

The Life and Writings of William Paterson, founder of the Bank of England. London, 1858. (PATERSON).

BARAS, MARC ANTOINE, was born at Toulouse in 1764, and studied the *belles lettres* and jurisprudence, and became an advocate before that Parliament. He soon abandoned law, however, for Political Economy, which had but few cultivators at that time in France, and he submitted several plans of reform to Condorcet. He also became acquainted with Bailly, and other eminent men. He composed a work *Arithmétique Politique* on a similar plan to that of Arthur Young, which gained him much reputation. He was a partisan of the revolution, and in 1791, being elected as one of the municipal council of Toulouse, he did much to introduce the revolutionary laws there. The Spaniards threatened an invasion, and he was sent to the Convention to urge them to adopt defensive measures. He returned to Toulouse, where he described in indignant language the disgraceful scenes of violence he had witnessed in the capital. He was soon afterwards denounced as a Federalist, sent to Paris and executed along with Hebert, De Vincent, and others, on the 13th April, 1794.

Arithmétique Politique. Paris.

Eloge de Docteur Price.

Tableau de l'instruction publique en Europe. Paris.

BARAULT-REULHON, C. HIPPOLYTE.

Economie Politique, avec l'organisation de la force publique. Paris, 1850.

BARBE-MARBOIS, FRANCOIS, LE MARQUIS.—Born at Metz, 31st January, 1745, formerly First President of the Court of Accounts. He was employed in the diplomatic service by Louis XVI., and was appointed one of the council of Ancients in 1795. He was transported to Guyane after the 18th Fructidor, but appointed Councillor of State in 1801, and a Peer of France in 1814. He died 14th January, 1837.

Mémoire sur les finances. Paris, 1797.

La richesse du cultivateur. Translated from the German. Paris, 1803.

BARBET, AUGUSTE.

Système social, et responsabilité de l'homme, ou de la nécessité du prêt par l'état, troisième force gouvernementale prenant sa base d'action sur les masses dans l'organisation du travail. Paris, 1846.

Au peuple; état de l'économie politique et sociale de la France. Paris, 1848.

BARBIER, A.—*Chef de division* in the prefecture of Vienne.

Organisation et travaux des commissions cantonales de statistique. Poitiers, 1854.

BARBIER, STEPHEN.

An expedient to pay the public debts of England and France. London, 1719.

BARBON, NICHOLAS.

A discourse on Trade.

A discourse concerning coining the new money lighter, in answer to Mr. Lock's considerations about raising the value of money. London, 1696.

This is one of the host of pamphlets which appeared during the great monetary crisis of 1696. (COINAGE). It advocates the reduction of the new money to the standard of the degraded coin, which was in circulation, just as many persons, in 1816, would have reduced the new coinage to the standard of the depreciated bank note. Although Barbon's object was to dispute the sound doctrine supported by Locke that the quantity of bullion in the coin was the measure of its value; and to establish the foolish fallacy that it was the name and stamp on the coin which gave it its value, yet this little work contains some remarkable things. He very clearly understood and inculcated the doctrine that *value* was the relation which a thing bore to other things, and he is one of the first that we are aware of, who notices what Adam Smith calls the distinction between *value in use* and *value in exchange*. "There is nothing," he says, p. 6, "that troubles this controversy more than for want of distinguishing between value and virtue.

"Value is only the price of things; that can never be certain, because it must be then, at all times, and in all places, of the same value; therefore nothing can have an intrinsic value.

"But things have an intrinsic virtue in themselves, which in all places have the same virtue; as the loadstone to attract iron, and the several qualities that belong to herbs and drugs, some

purgative, some diuretical, &c. But these things, though they may have great virtues may be of small value, or no price, according to the place where they are plenty or scarce, as the red nettle, though it be of excellent virtue to stop bleeding, yet here it is a weed of no value from its plenty. And so are spices and drugs in their own native soil of no value, but as common shrubs and weeds, but with us of great value, and yet in both places of the same excellent intrinsic virtues." Again, "For things have no value in themselves, it is opinion and fashion brings them into use, and gives them a value." Barbon thus puts his finger on the very thing which is the curse and the bane of Political Economy at this day, the expression, *intrinsic value*, which is confounding an *intrinsic quality* with an *external relation*. (BANK NOTE; VALUE.)

He also well shews that there is no distinction between things of equal value, whether they are perishable or durable. An error on this point long infected Political Economy.

The most remarkable part of the work, however, is the thorough refutation he gives to the fallacy of the balance of trade and the mercantile system. This chapter well deserves to be read, because it is as complete as anything in Adam Smith, or any subsequent writer. Barbon, in the beginning of his work, well shews that the fable of Midas was the best burlesque of the mercantile system. After exposing the absurdity of those who think that gold and silver were the only wealth, he says, "I have insisted longer on this subject than was necessary in this discourse, and the rather because the *Balance of Trade* does so generally perplex all debates concerning trade. And that the notion seems as if it were first invented by some merchants on purpose to mislead men's reasons about trade, because it is commonly used for an argument against any flourishing trade, *That such a trade is not for the benefit of the nation.*" * * *

And though I am of opinion there never was any balance of trade made up, nor can be, by any methods proposed, as I have yet heard of, nor any such uses to be made by it, as is expected if it could be found out, yet because I cannot think that gentlemen may on a sudden alter their opinion by anything I have wrote against a subject so generally believed, I will, therefore, for argument's sake, suppose there is a balance of trade, and that it is, or may be, cast up every year with every nation, yet it will not follow that the balance of the account must be paid in money. For if the balance be paid by value, it is no matter by what sort of goods that value is paid. *For one sort of wares are as good as another if the values be equal.* An hundred pounds worth of lead or iron is as good as an hundred pounds worth of silver or gold." p. 52-3.

He also shews that it is a great mistake to suppose that money only goes out of a country because there are debts to be paid, as so many of the witnesses in 1804 and 1810 maintained. "Money is never carried out of any country when it is coined, except it be to those countries where the bullion bears a higher price than what the money is current at, or where the exchange runs so high to any country, as it will be more profit to the merchant to melt down the money and send it over in bullion than by bills of exchange. And in both these cases it may often fall out that

the money may be sent over to a country, and yet no debt contracted in that country. And there the *balancing the account* cannot be the reason of drawing money out of a nation.

"For though Spain were not indebted to any nation, yet the gold and silver would be brought away. For being more plentiful there than in any part of Europe, because of the West Indies that belong to them, is consequently there of lower value. And being their chief staple commodity, having little other goods of value, if they will trade with other nations, and have their commodities, they must give their bullion in exchange, though their laws are capital that prohibit it. And yet every time they traffic with other nations there may be no debts left on either side." Among the inferences he draws is, "That no sort of commodities ought to be totally prohibited, and that the freer the trade is the better the nation will thrive."

Barbon thus has the merit of being one of the first to expose the fallacy of the balance of trade, though his work does not seem to have produced much effect, and it was reserved for Quesnay and the economists of France, to make the first impression on public opinion. He also saw with great clearness the fundamental fallacy which to this day infects Political Economy. But when he comes to discuss the principal object of his work his sagacity seems entirely to desert him, and it is nothing but an elaborate attempt to prove that the quantity of bullion in a coin does not affect its value, which he alleges is derived solely from the name and the stamp. If it had not been for this most unfortunate absurdity, this would have been one of the most excellent works before Adam Smith.

BARBOSA—FERREIRA—TERXEIRA—GIJIÃO, ANTONIO LOBO DE.

Memoria sobre os pesos e medidas de Portugal, sua origine antiquidade, denominação e mudanças &c. Lisbon, 1833.

BARHYDT, DAVID PARISH.

Industrial Exchanges, with a consideration of taxation. New York, 1849.

BARING, ALEXANDER. LORD ASHBURTON, An eminent merchant, second son of Sir Francis Baring, (see following notice) was born 27 October, 1774. He was sent to America and Canada, and managed that department of the business of the great house of Baring. In 1798, he married the daughter of William Bingham, Esq., a Senator of the United States. In 1810, on the death of his father, he became the head of the house of Baring Brothers. He was elected M.P., for Taunton in 1812, and for Callington in 1820, which he represented till it was disfranchised by the Reform Act. Up to this time he had belonged to the Whig party, but he opposed the Reform Bill, and then joined Sir Robert Peel. In 1834, that minister appointed him President of the Board of Trade, and Master of the Mint, and before his retirement from office in April 1835, created him a peer. Mr. Baring chose the title of Lord Ashburton, his aunt having married the famous John Dunning, who was created Lord Ashburton in 1782, and whose son died without

issue in 1823. The relations between Great Britain and America having assumed a threatening aspect in consequence of disputes about the unsettled boundary between Maine and Nova Scotia, Lord Ashburton was sent out by Sir Robert Peel as a special commissioner to settle the matter, which he succeeded in doing, though it is unfortunately true that he was over-reached by the American commissioner, who wilfully suppressed authorities which were in favor of British rights. Although Lord Ashburton was an adherent of Sir Robert Peel, he opposed the Bank Charter Act in 1844, and the repeal of the corn laws in 1846. He was a great patron of the arts, and a Trustee of the National Gallery and British Museum. He was a member of most of the Committees on Banking in the House of Commons while he sat in it. He died in 1848.

The causes and consequences of the orders in council with America. London 1808.

The commercial and financial crisis considered. London 1847.

This pamphlet was written to shew that the Bank Charter Act of 1844, was unsuitable and productive of mischief in such a crisis as that of 1847.

"It is singular that in proportion to the abstruse nature and inherent difficulties of a subject, men are apt to be positive and dogmatical in their theories, undaunted by adverse experience, and repeated disappointments. The various schemes for regulating the action of Banks have been propounded with unhesitating confidence, and pronounced to be unfailing although every real trial of this great practical problem proves that it still remains to be solved, and even the, to me, unintelligible theories of the Birmingham school of philosophers are still maintained with perseverance by persons of great ability, who seem unconscious that beyond the circle of their own town, the whole world is against them. The last notable settlement of this endless controversy was by the Bank Charter Bill of 1844, and the great leaders on both sides of the House of Commons are resolved to defend it, in spite of the unfortunate fact that, on the first occurrence of what is called a crisis, the failure is apparent, in the evidence of a state of embarrassment never exceeded. Mere speculative reasoners defend their theories with sufficient obstinacy, but men who are, who have been, or who expect to be, ministers of state, cannot so easily afford to be in the wrong or to confess themselves to be not infallible. It is therefore stoutly maintained in the House of Commons by the leaders of both parties, and their numerous partisans, that look about as you may for the cause of our difficulty, the last Charter of the Bank, with its whimsical restrictions and provisions, was an act of absolute wisdom. * * *

"Now, my object in appearing before the public is to endeavour to maintain, with as few words as the case may admit, the opinion I gave when the Charter Act was before the House of Lords, that the expectations entertained of this infallible panacea were unfounded—that it would only work in fair weather, when restrictions of all sorts are inoperative and immaterial,—that it could not fail to break down under the first difficulty, and that it is in fact a serious aggrava-

tion, if not indeed the actual cause of the distress we now experience!"

He then alludes to the crisis of 1825, which was very similar to that of 1847, and ridicules the division of the Bank into two departments. "If it were necessary to limit their circulating notes, it might have been done in a direct and simple form, but I shall endeavour to shew that any rigid limitation by law of a positive amount of issue of paper to bearer, having the character of currency, at all times and under all circumstances, is inconsistent with the duties and usefulness of a bank." He then states the theory of the framers of the Act of 1844, and describes the crisis of 1825. In that crisis the credit of the Bank was good, no one refused its paper, and the state of the foreign exchanges was favourable, so as to render it impossible to export gold. He was sent for by the ministry to consult with them and the governor of the Bank, as to what should be done in this crisis. They unanimously agreed that, considering the state of things as described, *an increase of accommodation was the true remedy*, which was accordingly done, and proved quite satisfactory. "It is hardly necessary that I should guard myself from being supposed to maintain that an increased issue of paper is an invariable remedy against a drain of specie, but what I do maintain is that it was the fit remedy for that particular case, and that it was undeniably proved to be so by the result, while a contrary treatment might have suited a drain caused by adverse exchanges. But the Act of 1844 says, that all cases of drain shall be treated in the same manner; that there shall be no discretion or judgment allowed as to causes, and my reason for dwelling so long on the case of 1825-6 is to substitute for speculative reasoning a clear proof that the Act of 1844, not only would not have suited that case, but would have aggravated all the difficulties; that it consequently is not of universal application, and therefore cannot without danger be suffered to govern indiscriminately our circulation. I think I might stop here, and hold that I had proved enough by positive facts and results, and not by mere brain-spinning, the fallacies upon which this Act is founded. *Its machinery does not suit the case of pressure on the Bank from domestic distrust and panic, and these must always be a large and formidable portion of our monetary visitations.*"

He then treats of the word "currency." "If the Birmingham philosophers are puzzled by the question so often put to them, to define what they mean by a pound sterling, when their paper is clothed in its irredeemable character, sounder reasoners appear to have equally failed in any precise definition of the word *currency*. The Act of 1844, treats it simply as bank notes to bearer, but they who observed critically and carefully all the varied mazes of our monied transactions, must recognize an almost endless variety of objects, acting more or less directly, and with more or less celerity, the same part—bills of exchange at long or short dates—exchequer bills—India and railroad bonds—deposits on demand with the great money brokers—latterly, post office orders for small sums passing from town to town, of which useful description of quasi-currency, the public will probably be surprised to learn that

little short of £6,000,000 were circulated last year. But above all, deposits both with the Bank of England and private bankers, are a most essential part of this currency; though they do not appear in the tangible shape of pieces of paper passing from hand, they are, in fact, the most formidable means of commanding the treasures of the Bank, though they seem to be wholly overlooked by our exclusive guardians of the currency. The theorist sees in circulation nothing but the bank note, but the practical man engaged in large operations knows how many millions pass through his hands without his seeing or touching a bank note, and how many varied securities and engagements perform the essential duties of his circulation."

Lord Ashburton then goes on to shew that this Act is unsuitable to be made an inflexible rule to govern the circulation in all cases, but that different species of pressure require different modes of treatment. An opinion which is further confirmed by the crisis of 1857.

BARING, SIR FRANCIS.—An eminent merchant of London, born 18th April, 1740, was the third son of John Baring, Esq., of Larkbeer, Devonshire, who was of German extraction. He was created a Baronet in 1793, and died in 1810. His sister Elizabeth, married the famous John Dunning, the first Lord Ashburton. Sir Francis was one of the witnesses examined before the Bullion Committee. He published the following pamphlets:—

Observations on the establishment of the Bank of England, and on the paper circulation of the country. London, 1797.

This pamphlet, as containing the opinions of an eminent merchant is entitled to our notice. It moreover contains some details of interest. The panic of 1793 began with the banks at Newcastle, which the writer attributes to their issuing notes, which allowed interest to commence some months after date, and were then payable on demand. The partners were wealthy, but their funds were invested, and when the run came they had no time to prepare to meet it. The banks in the west of England, on the contrary, stood their ground, though not so wealthy as those of the north, because they issued notes payable at twenty days after sight, with interest to commence from the date of the note, and cease at acceptance. The writer, therefore, wished a law to pass, to prevent country banks issuing notes payable on demand. Sir F. Baring then describes the circumstances of the panic of 1793, (*CRISIS, COMMERCIAL*), and the policy of the directors of the bank. He makes some observations on the course the directors should follow in a crisis. "For the present purpose it may be sufficient to confine the considerations, as to the cause of the demand for guineas to three heads.

"First, as a medium of remittance to foreign parts, to supply the want of bills of exchange.

"Second, for the purpose of hoarding in the country, from a want of confidence in the government, and in the circulating paper.

"Third, to enable country banks to discharge their demands whilst confidence in the government, and in the Bank of England, remained entire and perfect.

"The first is the most dangerous, as being the

most injurious to the country; every measure ought to be taken to palliate or prevent it, prohibition or bankruptcy excepted; but it is inevitable, if we shall continue from a long time to have more to pay to foreigners than we receive from them, or, in other words, if the Balance of Trade is against us.

"The second is the only circumstance which can, in any measure, justify the late bankruptcy.

"The third ought to be viewed, not with perfect indifference, but with a disposition on the part of the Bank to supply almost their last guinea; as they cannot be sent abroad but must return again to their own coffers, as proved to be the case in the year 1793."

It was notorious at the time that large quantities of gold and silver were received from France; of course none could be sent thither.

Sir. F. Baring approved on the whole of the Bank restriction Act, seeing the constant danger of a run on the Bank from fears of invasion, and he was also of opinion that bank notes should have been made legal tender during the war. "A change even from good to better ought not to be made until there is almost a certainty of maintaining and preserving it in that position, for a retrograde motion in public credit is productive of consequences which are incalculable. With this principle in view, I am adverse to the Bank reassuming their payments generally during the war, whilst there is a possibility of their being obliged to suspend them again." He thought that such a course would promote confidence and increase the security of their notes. "But as the directors are men, and, of course, fallible, it will be dangerous in the extreme to trust them with such power, without some efficient check and control. They may, for the advantage of the proprietors, increase their circulating power without bounds. Or they may, under the influence of the minister, enter into loans or engagements beyond what the general security and safety can justify. These objects can only be attained by limiting the amount to which the company shall be permitted to issue their notes; and which, as observed before, ought not much to exceed the amount of what is at present in circulation." The author's prognostications were fully verified some years later by the extravagant issues of the Bank of England and country banks, which, in 1810, at length caused the appointment of the Bullion Committee.

Further observations on the establishment of the Bank of England and on the paper circulation of the country. London, 1797.

BARNARD, SIR JOHN.—An eminent merchant of London, was born at Reading in 1685. His parents were Quakers, but he joined the Church of England at the age of 19. He entered his father's counting-house at 15, who was a wine merchant, and in 1721 he was deputed by the wine merchants to oppose before Parliament, a bill which they considered would injuriously affect their interests. The reputation which he gained on this occasion procured him to be returned as Member for the city in the following year, which he represented for 36 years. He was always considered a high financial and commercial authority in Parliament, and was opposed to Sir Robert Walpole. He was knight-

ed in 1732, and chosen Lord Mayor in 1737. On the 17th September, 1745, the Chevalier captured Edinburgh, and as soon as the news of this reached London, a run began upon the Bank of England, and its notes fell to a discount of 10 per cent., and its credit seemed to be in danger of being destroyed. In this emergency Sir John Barnard called a meeting of the merchants at Garraway's Coffee-house, and 1600 signed a paper pledging themselves to support the credit of the Bank, which produced such a good effect, that the notes recovered from their depreciation and the run ceased. The merchants erected a statue to him in the Royal Exchange, during his life. It was destroyed by the fire in 1838. He retired from public life in 1758, and died 29th August, 1764.

Reasons for the representatives of the people of Great Britain, to take advantage of the present rate of Interest for the more speedy lessening of the national debt. London, 1707.

A defence of several proposals for raising of three millions for the service of Government for the year 1746. London, 1746.

A letter to a Member of Parliament occasioned by the rejecting of a scheme for raising three millions, &c. London, 1746.

Some thoughts on the scarcity of silver coin, with a proposal for remedy thereof. London, 1756.

BARRAU, PIER BERNARD.—A French economist, born at Toulouse in 1767. He was appointed to a place in the War Office in 1793, but having married a rich wife, he soon gave it up. Reflecting on the number of well established fortunes which had been destroyed by unforeseen disasters he was led to consider the principles of assurance, and established in the South of France the first Mutual Assurance Society. He died in 1843.

Projet d'assurances pour les récoltes en grain et vins, contre les ravages de la grêle. Toulouse, 1801.

Projet d'assurances réciproques pour les maisons contre l'incendie. Toulouse, 1803.

L'ensemencement et la culture rendus plus simples, plus économiques, et plus productifs, au moyen du semoir et du sarcloir-Barrau. Paris, 1833.

Traité des fléaux et des cas fortuits; ou Manuel de propriétaire de toutes les classes. Paris, 1816.

BARRE, CHARLES.—Advocate at Paris. *Du crédit et des Banques hypothécaires.* Paris, 1849.

BARRELLAS, ESTEVAN.

Semanario curioso historico, erudito, commercial, publico, y economico. Barcelona, 1750.

BARREME, FRANÇOIS.—A French arithmetician, born at Lyons about the middle of the 17th century. He settled at Paris, and gave lectures there. Being warmly patronized by Colbert, his lectures became very fashionable, and his name became proverbial in France, like that of Cocker with us. He died at Paris in 1703.

Comptes faites du grand commerce. Paris 1670. Best edition, 1708.

L'Arithmétique, ou le livre facile pour apprendre l'arithmétique soi même. Paris, 1677.

Le livre nécessaire pour tous les comptables. Paris, 1694, and 1704.

La géométrie servant à l'arpentage. Paris, 1673.

Le grand Banquier, ou le livre des monnaies étrangères réduites en monnaies de France. Paris, 1681, 1696, and 1717.

Le cahier curieux de Barrême, arithméticien. Quatre Traités sur les parties doubles, le livre des aides et domaines.

BARRET, PHINEAS.

Tables of the several European Exchanges. London, 1771.

BARROIS, L. THEOPHILE.

Mémoire sur cette question; quels seraient les meilleurs moyens à employer pour soulager les souffrances des commerçants, et des propriétaires de Paris, et de la France. Paris, 1848.

BARRY, FRANCISCUS DE.

De successionibus testati ac intestati opus. Leyden, 1617.

BARSALON, GUSTAVE.

Etudes sur le passé et sur l'avenir des travailleurs industriels. Agen, 1848.

BARTH.

Vorlesungen über National-Ökonomie. Augsburg, 1833 and 1843.

Vorlesungen über finanzwissenschaft. Augsburg, 1843.

BARTON, JOHN.

Observations on the circumstances which influence the condition of the labouring classes of society. London, 1817.

An enquiry into the causes of the progressive depreciation of agricultural labor in modern times. London, 1820.

An enquiry into the expediency of the existing restrictions on the importation of foreign corn, with observations on the present social and political prospects of Great Britain. London, 1833.

BASTERECHE, LEON.—A Director of the banque of France. Born at Bayonne, died in 1802.

Essai sur les monnaies. Paris, 1801.

BASTIAT, FREDERIC.—Of all the losses which Political Economy has ever had to deplore, few, if any, are to be compared to that of Frederic Bastiat. Other great economists have run their full career, and have probably given to the world all that could be expected of them, but Bastiat was cut off in the full maturity of his powers, after a brief but immortal career of only six years, just when the fruits of his long meditation, combined with such clearness of perception, power of exposition, vivacity of style, keenness of irony, and irresistible wit, as had never before been brought to bear on the subject, had begun to develop themselves. But it is not in these alone that Bastiat's merit consists. It consists in this, that he

was one of the great founders of what we call the **THIRD ERA** of Political Economy—the school of Aristotle, Bailey, Whately, and Chevalier.

Bastiat was the son of a merchant of Bayonne, and was born there on the 25th of June, 1801. He was left an orphan at the age of nine, and the care of his education devolved upon his grandfather, who had a small estate at Mugron, in the centre of the department of the Landes. He was sent to the College of St. Sever, and afterwards to that at Sorreze, and brought up with a view to enter his uncle's house of business at Bayonne, which he did in his nineteenth year. At first he thought that the business of a merchant was purely mechanical, and could be picked up in a few months. But he was very soon disabused, and found that the science of commerce was not mere routine, and that a merchant, besides his goods and his ledgers, ought to study the laws of Political Economy.

The love of study, however, drew him away from commerce. Possessed of sufficient means to satisfy his modest desires, he left his uncle's counting-house after some years, and, in 1825, on his grandfather's death, retired to his property at Mugron. He tried agriculture, but did not succeed. He studied Adam Smith, J. B. Say, for whom at that time he had a great admiration, Charles Comte, Dunoyer, and the Basque, or Escualdan language. He also studied deeply English and Italian literature. During the following years he devoted himself to philosophy and religion. His excessively retired habits at this time exercised a very unfavorable influence upon his health and spirits, and he so weakened his mind by plunging too deeply into philosophical and religious controversy that, for some time, he was in danger of sinking into a mere devotee.

But he was at length happily persuaded to come more into the world, from which he found a decided benefit. His ideas on the subject of wealth underwent a change. Casting off the juvenile folly of despising money, he came to see that, in modern times, money is often nothing but the fruit of honorable industry, and the reward of benefits conferred upon our fellow men, and henceforth he came to have a more rational view of it.

Thus, for several years his life passed away in peaceful meditation, deep study, and earnest preparation for the brilliant fruit that was to come. It does not appear that he thought of publishing anything till 1829, when he prepared a treatise on the Prohibitive System, but it never saw the light.

In 1831, he was appointed to the office of *juge de paix* at Mugron, and soon after, he was elected a member of the *Conseil Général* of the department, and for the next nine years he followed the same uneventful life. In 1840, he went to Madrid to assist in founding an Insurance Company, and he gives an amusing account of the Spanish character. Having some family business in Lisbon, he went on there, and from thence to Southampton by the English steamer. At this time he had no knowledge of the existence of the Anti-corn-law league. He returned to Paris in January, 1841.

Bastiat had written a few minor articles, shewing great ability, and containing many of the ideas he afterwards developed with such sur-

passing brilliancy, which appeared in the provincial journals. He also addressed some memoirs to the Scientific Society of the Landes, upon the state of the vine cultivation, and the local taxation; but these, of course, did not attract much general attention. It was in July, 1844, that he sent his first article to the *Journal des Economistes*, which first announced to the world that a great economical writer had arisen.

This article upon the influence of the English and French tariffs upon the future of the nations, coming from an unknown name, in the depths of a remote province, at first attracted no attention, and seems to have been destined for the editor's waste-paper basket, when it happened to attract the notice of M. Dussard, who immediately saw its merits. It was inserted in the number for October, 1844, and created an immense sensation, and further contributions were eagerly requested. He then contributed to its columns a series of articles exposing the fallacies of the protectionist system, which were afterwards reprinted, and form part of his *Sophismes Economiques*.

The Anti-corn-law league had been for several years carrying on a vigorous crusade against the corn laws, but so little were the people of either country then acquainted with each other's proceedings, that its existence was almost unknown in France. Bastiat by accident subscribed to the *Globe* newspaper, and thus discovered its existence, and watched its career with the strongest interest, and soon conceived the idea of forming a similar one in France. He entered into correspondence with the chiefs of the league, who sent him papers connected with it. Bastiat then commenced to write in the Bayonne and Bordeaux papers, to try to draw public attention to it. He then tried to organize an association at Bordeaux for the freedom of trade, but this failed at the time, chiefly from want of funds. He then thought of a daily paper in Paris, but the same obstacle prevented its establishment. An opportunity opened to him of being elected a deputy, but for the time he declined.

Seeing the impossibility of organizing a French free trade league at that time, he thought that the next best thing to do, was to translate and set before the public of France the history and proceedings of the English league. He completed a volume containing a brief history of the League, with translations of the principal speeches of the leaders, by April, 1845, and entitled it, *Cobden et la Ligue, ou l'agitation Anglaise pour la liberte des échanges*.

The publication of this work which had been undertaken by Messrs. Guillaumin & Co., brought him to Paris in May, 1845, when he was received with the greatest cordiality by the leading economists of the capital. His brilliant articles—the *Sophismes*—attracted great admiration, and soon produced a perceptible effect in the provinces, and on the circulation of the *Journal*.

In June, 1845, he determined to go to England, and make the personal acquaintance of the chief Members of the League. At this time his reputation had increased so much that he was offered the editorship of the *Journal*. This position would have given him enormous advantages, but it would have required him to leave his country seat and his friends, which at that time he was not prepared to do. In July, 1845,

he came to London, with his book, and visited Manchester.

He returned to Mugron in October. By this time the French press found themselves at last obliged to notice Bastiat's book on the League. It made a great sensation both in Paris, and the Provinces, especially in the South. A numerous party wished to place Bastiat in the Chamber of Deputies, but he still continued to prefer a private position, as it was too early to form a party. Bastiat says that at this time there was not a single Member of either Chamber who dared to avow free trade opinions, or who understood their bearing, or who could support them against the sophisms of monopoly. And this too in the country where J. B. Say and others had lectured with great success, and popularity! We can, therefore, well appreciate the necessity of such a blaze of light, as his *Sophismes Economiques*, in the midst of such Cimmerian darkness. But the French mind was now really awakened on the subject, and in February, 1846, a movement was organized at Bordeaux. On the 23rd, M. Dufour-Dubergie, the Mayor, was elected President of the Bordeaux Free Trade Association.

Bastiat's book had extraordinary success at Bordeaux, where it soon created a veritable enthusiasm, and it became quite the fashion to join the league. The success of the movement was so great as to alarm Bastiat, who wished to restrict it to persons who were really convinced, as he foresaw that when the time came for it to take action, and present a petition to the chambers, their differences of opinion would break out. The greatest enthusiasm spread through France, and Bastiat saw that it would be best to transfer the seat of the movement to Paris, as the Parisian press had ten times the influence of the Provincial. He now removed to Paris, and in a short time the *Société des Economistes* was organized, with the Duc d'Harcourt as President, and joined by all the leading economists. Numbers of peers, deputies, and merchants hastened to subscribe to the new Society. Marseilles, Lyons, Havre, and Nantes followed the example. Five papers at Paris, three at Bordeaux, two at Marseilles, one at Havre, and two at Bayonne, adopted the cause. The *Société des Economistes* started a paper called the *Libre Echange*, of which Bastiat was appointed Editor. But, notwithstanding this enthusiasm on the surface, the real progress of the association was slow and disheartening. Bastiat complains that he could not find two men who were real economists. The authorization necessary to constitute a society was delayed by government, and the French people were so unaccustomed to meetings, associations, subscriptions, and common action, that Bastiat almost gave it up in despair, and thought of returning to Mugron, and confining himself to writing in the papers. Moreover, the progress that his views were making in public opinion, aroused the alarm of the Protectionist party, and it was generally believed that the spread of free trade opinions was some deep Machiavellian plot of *Perfidie Albion* to ruin France, and it was said that Bastiat and his friends were sold to the League.

The triumphant success of free trade principles by the repeal of the corn laws in 1846, gave the corresponding move in France, an additional

stimulus. The protectionists also, now thoroughly alarmed, formed counter-associations, and threatened the government, and tried to arouse the working classes. Bastiat and his friends were denounced as the agents of Pitt and Coburg, those terrible bugbears of French imagination, and so great was the public fury, that his name could not be mentioned in his own village of Mugron.

The government was somewhat alarmed at first at the movement, which resembled in many respects the public ferment before 1789, but they soon saw that the free traders would form a counterpoise to the protectionist party, and M. Duchatel, the Minister of the Interior, privately encouraged one of the members of the Bordeaux association, saying, *soyez fortes, et nous vous soutiendrons*. The protectionists unceasingly denounced them as emissaries of *perfidie Albion*, an imputation which almost overwhelmed them. Bastiat testifies to the profound hatred of England rooted in the minds of the French.

In 1847 Bastiat writes that, after all, the greatest danger and obstacle he had to encounter was Socialism, which had come to the aid of Protection, and had adopted all its fallacies. The principal danger was that the Socialists had attracted a very considerable portion of the rising talent of the country by their specious fallacies; by loudly proclaiming the undoubted evils and misery which existed, and maintaining that their system provided a remedy for them. Thus enlisting the best feelings of humanity on their side, and exciting the imagination of youth by visionary dreams of a social paradise, where some new grand organization of Society was to be effected.

Bastiat saw that the chief danger to his system lay with the youth of the country, and that the best chance of success was in enlisting them on his side. He determined, therefore, to address a course of lectures to the pupils of the schools of Justice and Medicine. They heard him with respect and temper, but without altogether comprehending him. He gave each of them a copy of his *Sophismes*, and then planned out his *Harmonies Economiques*, the former being the *destructive* or *negative* side, and the latter the *constructive* or *positive* side of his system.

Bastiat says that his difficulty was that the democracy of France was protectionist to the core, and filled with hatred of England, and, of course, doubly prejudiced against any doctrines that came from that quarter.

Towards the end of 1847, Bastiat spoke at several of the provincial towns, and was received with much favor.

In the beginning of 1848, the enthusiasm created on the subject of free trade had begun to wane. The increased political struggles distracted the attention of the public from this matter, and Bastiat's health, which had always been feeble, compelled him to resign the editorship of the *Libre Echange*.

The events of February, 1848, brought new enemies into the field. For ten years socialist doctrines had been spreading widely through the working classes, who were firmly convinced that the State was bound to find food, work, and education for every one. The Provisional Government adopted this doctrine. Bastiat felt himself called upon to combat it, and resolved to seek

election to the National Assembly. All the people in the provinces of France were to be sacrificed to the populace of Paris, for while all France was to be taxed to support them, no one thought of supporting the farmers, the laborers, and the artisans of the provinces.

Feeble and suffering as he was, and compelled as he had been to resign the editorship of the *Libre Echange*, when this new danger menaced the State, Bastiat felt himself called upon to face it, and besides the duties of a member of the Assembly, he assumed the editorship of the *République Française*, and combated the socialists in the *Journal des Economistes*, and in a number of little pamphlets, which became very popular, and are mentioned below.

Bastiat was not endowed by nature with the gifts of an orator, and hence he was not able to make much impression on the Assembly from the tribune. But he was appointed to the Committee of Finance, and elected Vice-President of it. He endeavored to devise a general scheme of taxation to mitigate the excessive weight with which it fell on articles consumed by the laboring classes, but it was too daring, vast, and comprehensive, to suit the capacity of such a promiscuous mob as the Legislative Assembly.

Up to this time the works which Bastiat had published were chiefly polemical, and though, of course, they were full of the most profound truths, and inimitable in their line, no controversial works can be expected to survive the errors they expose.

Bastiat had long been meditating a *constructive* work, to shew the connection between the moral sciences and Political Economy, which he proposed to call *Harmonies Sociales*. He hoped by this to enlist on the side of Political Economy the rising talent which was inclined to join the socialist ranks. In the autumn of 1848, this desire grew stronger than ever. The last controversial work he put forth was a series of letters, in which he combated the socialist doctrine of the abolition of interest. At the beginning of 1850, the first volume of his *Harmonies Economiques*, which he considered as the crowning work of his life, was published. But the fearful exertions of the two preceding years had told with fatal effect upon his sickly body, and he felt an internal consciousness that the end of his race was approaching. All he ventured to hope for now was a single year of life to finish the second volume of his *Harmonies*. But his darling wish was not destined to be accomplished.

During the summer of 1850, the enormous labor he imposed upon himself greatly increased his malady, which now fixed itself on his throat, and he completely lost his voice. His physicians enjoined on him perfect rest and silence, and ordered him to spend the winter at Pisa.

The illustrious invalid reached Pisa in September, 1850, and soon proceeded on to Florence, and Rome. But it was too late. He himself felt that his race was run. His friend, M. Paillottet, arrived at Rome to cheer the last moments of the dying philosopher, and he has published an affecting narrative of the last few days of his life. Bastiat died on the 24th December, 1850.

Bastiat's separate works have been collected in six volumes, and published in two forms, 8vo.,

and 12mo. They are not quite arranged in chronological order. We shall notice them as they appear in this edition, stating also the form and manner in which they were originally published, and giving some of the most remarkable extracts from them. Vol. I. contains some of his correspondence, as well as

Aux électeurs du département des Landes. 1830.
Réflexions sur les pétitions de Bordeaux, de Havre, et Lyon, concernant les Douanes. 1834.

Le fisc et la vigne. 1841.

Mémoire présenté à la Société d'Agriculture, Commerce, Arts, et Sciences, du département des Landes, sur la question vinicole. 1843.

De la répartition de la contribution financière, dans le département des Landes. 1844.

These writings addressed to the provincial papers, and composed before his appearance before the public of the capital, contain many of the opinions and conceptions which Bastiat afterwards developed with such brilliancy in his subsequent writings.

De l'influence des Tarifs Français et Anglais sur l'avenir des deux peuples. In the *Journal des Economistes*. October, 1844.

This was the article which created such a sensation on its appearance, and established Bastiat's reputation in the capital. It is a masterly exposition of the progress of Free Trade in England, and of the errors of the prohibitive system, which was daily becoming more rigorous in France.

De l'avenir du commerce des vins entre la France et la grande Bretagne. In the *Journal des Economistes*. August, 1845.

An appeal in favor of the reduction of the enormous duties on French wines in England.

Une des questions soumises aux conseils généraux de l'agriculture, des manufactures, et du commerce. In the *Journal des Economistes*. December, 1845.

In 1845, M. Cunin Gridaine, minister of commerce, addressed some questions to the *conseils généraux* on certain proposed modifications of the law. One of them referred to the importation of iron. This paper of Bastiat's was written upon this subject.

Un économiste à M. De Lamartine, l'occasion de son écrit intitulé, Du droit au travail. In the *Journal des Economistes*. February, 1845.

An earnest remonstrance to the brilliant romancer, against the socialist doctrines which he had adopted.

Sur l'ouvrage de M. Dunoyer de la liberté du travail. 1845.

Sur l'éloge de M. Charles Comte par M. Mignet, in the Libre Echange. July, 1847.

De la répartition des richesses, par M. Vidal. In the *Journal des Economistes*. June, 1846.

Seconde lettre à M. De Lamartine. In the *Journal des Economistes*. October, 1846.

A MM. les électeurs de l'arrondissement de Saint Sever. 1846.

De la réforme parlementaire. 1846.

Vol. II. *Le Libre Echange.*

This volume is composed almost entirely of extracts from the paper *Le Libre Echange* which Bastiat edited for the *Société des Economistes*, and of speeches delivered in Paris and the provinces during 1846, 1847, 1848. As these articles contain the doctrines of his subsequent writings, we shall defer a notice of their salient

points until we come to his more elaborate one.

Vol. III. *Cobden et la Ligue, ou l'agitation Anglaise pour la liberté des échanges.*

This volume consists of translations of the speeches of the principal Members of the Anti-Corn-Law league, with extracts from the newspapers detailing the proceedings of the League in different towns. Bastiat failing at first to organize a similar free trade league in France, undertook this work to popularize the doings of the English league in France. It had great success, and was the first thing that made the general French public acquainted with the existence of the league. It is preceded by an introduction explaining the nature of the contest. This introduction is by far the weakest and most ineffective of Bastiat's writings, in our opinion. It would be easy to shew, if it were worth while, that it contains a considerable amount of unfair argument, but as it does not involve economical principles, we must pass it over, with a simple protest.

It is upon the last three volumes of this collection that Bastiat's reputation with posterity will rest.

Vol. IV. contains.

Sophismes Economiques. When Bastiat began to write, France was entirely imbued with Protectionist ideas. Beyond the walls of the Institute, there was scarcely a single person who either knew, or cared anything about Political Economy, or had any real knowledge of the doctrines of Free Trade. Bastiat thought that the best way of making an impression on the public mind, was to make a series of attacks on the principal fallacies of protection, so as to popularize the subject, and induce people to examine the subject point by point. This he did in a series of brilliant articles published chiefly in the *Journal des Economistes*, and the *Libre Echange*. These articles were collected and published in two series, the first in 1845, and the second in 1848. His premature death prevented the publication of a third series, for which materials were collected. We shall shortly indicate the subjects of the principal essays.

First Series. 1. Abondance, Disette. This shews that the natural result of the Protectionist theory is to produce a scarcity of everything. If man lived by himself, and worked for himself, and did not exchange, the scarcity theory would never have been heard of. He would then have perfectly seen that abundance was the best for him, whether it resulted from his own labor, from ingenious tools, or machinery, or from the fertility of the earth, or from some mysterious invasion which the waves might bring from abroad. Such a man, if he lived alone, would never think of destroying the instruments, which saved his toil, or of diminishing the fertility of the earth, in order to secure reward for his labor. He would clearly understand that labor is not an end but a means, and that a saving of labor was progress. But the notion of exchange obscures so plain a truth. Exchange creates two opposite interests in regard to each object—that of the Producer, and that of the Consumer, and each of them is apt to consider his own labor as an end, and not as a means. Each producer naturally wishes his own production to be as dear and

scarce, and the price to be as high as possible. Thus producers are always interested against the general well being, and if their wishes could be gratified, the world would rapidly retrograde to barbarism. The sail would proscribe steam, the oar would proscribe the sail, the oar in time would yield to carriage transport, and that to the mule, and that lastly to the pack, and so on of other products. On the contrary, the interest of the consumer is always to have abundance and cheapness, and consequently it is most in harmony with the general well being, which is manifestly more promoted by there being more of everything, more corn, more cattle, more cloth, more iron, more coal, more sugar, &c. than less of everything. The theory of abundance therefore is the consumer's interest.

II. *Obstacle, cause.* This follows up some of the ideas started in the preceding essay. Man in his natural state possesses nothing. Between this and the attainment of his desires, obstacles intervene, which it is the object of labor to surmount. It is clear, however, that he would be better off, if those obstacles did not exist. In a state of isolation, each must overcome these obstacles for himself, and it is clear the less these obstacles exist the better for him. In a state of society he does not attack all these obstacles by himself, but others do it for him, and he in return surmounts some of the obstacles which others are surrounded with.

It is quite clear, however, that for society in the mass, it is better as these obstacles are fewer and feebler.

But in modern society, from the division of labor, each one is occupied in combatting one species of obstacle, for the benefit of himself and his neighbours.

Each one, therefore, individually sees the immediate cause of his wealth in the obstacle which it is his profession to combat for society. The stronger and more powerfully it is felt, and the higher his neighbours will reward him for combating it, the more wealthy he becomes, and this happens to each producer in turn. Each profession, therefore, has a direct interest in the continuation and increase of the obstacle, which it is their special province to overcome.

Thus theorists, who found a system on the sentiments of individuals, say that a want is wealth, that labor is wealth, an obstacle to well-being is wellbeing, and that to multiply obstacles is the way to support industry, and increase national wealth. Thus, in process of time, the gross fallacy springs up that human labor is not a means, but an end. This, however, is an egregious fallacy. If one obstacle is overcome, there are always others to vanquish, and thus, if labor is saved, two obstacles may be overcome with the same amount of labor that one was before.

III. *Effort, résultat.* The doctrine of obstacles is further considered and pursued to its absurd consequences. Between our desires and their gratification, obstacles are interposed, which we must overcome by the exercise of our faculties, and in a general way industry may be said to be an effort followed by a result. But how is our wealth to be measured? By the result of the effort, or by the effort itself? A relation exists between the effort and the result. Does progress consist in the increase of the first, or the second

term of this ratio? In Political Economy, these two doctrines divide the domain of opinion.

According to the first system, wealth is the result of labor, and it increases according as the result is greater than the effort. Its perfection, whose type is the work of Providence, consists in an infinite distance between the two terms, viz., effort nothing, result infinite.

The second regards the effort itself as that which constitutes and measures wealth. To advance is to increase the relation of labor to the result. Its extreme is found in the eternal and sterile labor of Sisyphus.

The first naturally encourages everything which diminishes labor, and augments produce, such as powerful machinery to aid the force of man, trade, experience, competition.

The second supports everything that tends to increase labor, and diminish produce, privileges, monopolies, restrictions, prevention of machinery, &c.

The universal practice of man always follows the first system. There is no laborer of any sort, either agriculturist, manufacturer, merchant, artisan, soldier, writer, or man of science, who does not devote all his efforts to produce quicker, and more economically.

The contrary doctrine is that of theorists, deputies, journalists, statesmen, ministers, nevertheless these individually act upon the same principles that every one else does, to attain the greatest amount of result with the least labor. He then points out amusingly the contrary course of the theory and the practice of the most ardent Protectionists.

IV. *Egaliser les conditions de production.* In this he examines and refutes the Protectionist doctrine that the native producers should be put on an equality with the foreign producer, by protective duties equal to the difference of the expense of production.

V. *Nos produits sont grevés de taxes.* This is a continuation of the argument of the preceding essay applied to taxes.

VI. *Balance de commerce.* This is upon the oft-refuted fallacy of the Balance of Trade.

VII. *Pétition des fabricants de chandelles, bougies, lampes, chandeliers, réverbères, mouchettes, éteignoirs, et des producteurs de suif, huile, résine, alcool, et généralement de tout ce qui concerne l'éclairage, à MM. les membres de la Chambre des Députés.* Bastiat had well hit the fallacy which is at the root of so much false opinion in Political Economy, that labour is wealth, and that to create labor is to add to wealth. This essay is an amusing satire upon that doctrine, and is a petition of all persons concerned in the manufacture of artificial light to the chamber of deputies, against their natural enemy the sun, which inundated the country with a rival product to their own,—light at a fabulously low price, and whenever it showed itself it extinguished a great branch of national industry. To promote national industry they petition that every one should be prohibited from using sunlight.

VIII. *Droits différentiels.* A burlesque on differential duties.

IX. *Immense découverte!!!* Shews the absurdity of facilitating the means of transport, and neutralizing its effects by heavy custom duties.

X. *Réciprocité*. Shews the error of the reciprocity theory.

XI. *Prix absolus*. This shews the error of supposing that national prosperity or wealth, depends upon the absolute price of things, and shews the opposite results to which protection and free trade tend.

XII. *La protection élève-t-elle le taux des salaires?* Decides in the negative.

XIII. *Théorie, Pratique*. This throws back on the Protectionists the sneer which they habitually made against the free traders, that they were mere theorists, and had no regard to practice. Bastiat retorts that the free traders were the true men of practice, because there was not in the whole world a single man who in his own practice did not follow free trade principles, and that what was the invariable practice of each man individually, must be the true theory.

XIV. *Conflit de principes*.

XV. *Encore la réciprocité*.

XVI. *Les fleuves obstrués plaidant pour les prohibitionistes*.—This shows the absurdity of the same arguments in the mouths of opposite parties.

XVII. *Un chemin de fer négatif*.

XVIII. *Il n'y a pas de principes absolus*. This ridicules the cry that there are no absolute principles in Political Economy.

XIX. *Indépendance National*. This shows the fallacy of the Protectionist cry that every nation should be independent of its neighbours for its wants.

XX. *Travail humain, travail national*. Bastiat in this shows that those who cry out against foreign importations, ought, in consistency, to condemn all sorts of machinery, because they have precisely the same effects, and he ironically commends M. de Saint Chamans, a Protectionist writer, who does so. If foreign importations throw native workmen out of employment, machines displace human labour. A number of ill-informed economists—Sismondi among the rest—have always raised an outcry against machinery, for this very reason, but J. B. Say has shown that Sismondi's reasoning is erroneous, because it is based on the supposition that consumption is a fixed quantity, whereas consumption is, in most cases, capable of an almost indefinite extension. This argument of Say's is perfectly conclusive, but Bastiat has added to it in this essay another most important consideration. He shows that the introduction of machinery cannot possibly be injurious to the working classes as a body, because if any saving of capital is effected in production, and if the product is sold at a cheaper rate to the consumers, the capital saved by cheapening the production, and the money saved by the low price to the consumers, is available to increase employment in other ways. Thus any diminution in cost of production by machinery, necessarily provides a fund to support any men thrown out of employment. Thus it cannot injure the working classes as a body, though, no doubt, some individuals sometimes suffer.

XXI. *Matières premières*. This shows the fallacy of the common cry of admitting raw materials, and excluding the manufactured article.

XXII. *Métaphores*. This shows the dangerous fallacies which sometimes lurk in words, and the necessity of clear and precise language.

Bastiat concludes this series by pleading on behalf of the method he has adopted, as the one most likely to effect his purpose. A formal treatise has no doubt its advantages, and exposition of truth is always superior to the refutation of error. But to be useful it must be read, and is in general only addressed to a select audience. His one chief purpose was to make men think and investigate for themselves, and this was better accomplished by attacking in detail the errors of common opinion.

The second series was published in 1848.

I. *Physiologie de la Spoliation*.—In this, Bastiat follows up the ideas of the first series, and shows that protection is a system of spoliation.

II. *Deux Morales*.

III. *Les deux haches*. This is a further satire on a specious fallacy, that an increase of labour is an increase of wealth. It is a jocular petition of a carpenter that every one should be compelled to use blunt hatchets, in order to multiply work.

IV. *Conseil inférieur du travail*.—In this each trade in succession is called upon to set off the advantages and disadvantages of protection. The disadvantages are found to be numerous, and the advantage nil.

V. *Cherté, bon marché*. Advocates a total uninterference with prices.

VI. *Aux artisans et aux ouvriers*. Addressed to the working classes to dispel the false accusations which had been made against Bastiat and his friends, that they were agents of England, and explains to them in a familiar way some of the first principles of the subject.

VII. *Conte Chinois*. An amusing apologue to illustrate the master fallacy so often combated, that labor is wealth.

VIII. *Post hoc, ergo propter hoc*.

IX. *Le vol à la prime*. Shews the unfairness of bounties on production.

X. *Le perceuteur*. Analyses in a humorous manner the appropriation of the taxes.

XI. *L'Utopiste*. Explains, in a bantering way, the changes a utopian free-trader would make in the taxation of the country.

XII. *Le sel, la poste, la douane*. Explains in a comic dialogue, the advantage of the English Postal reform.

XIII. *La protection, ou les trois échevins*. A comedy in four tableaux, shewing up the absurdities of protection.

XIV. *Autre chose*. The chief cry against free trade among the Protectionists, was, that it displaced national industry. The inference was drawn by unthinking people that it destroys industry. Bastiat shews that it only transfers it to something else, and thus, with the same amount of labor, a much greater amount of products is obtained.

XV. *Le petit arsenal du libre-échangiste*. A list of some of the principal fallacies of Protection, with short answers to them.

XVI. *La main droite, et la main gauche*. This is another amusing attack on the fallacy Bastiat so often ridicules, that labor is wealth. It proposes that everyone should be compelled to use his left hand in order to increase the amount of national industry.

XVII. *Domination par le travail*. This is to dissipate a fear, that in peace the most industrious nation might overpower the weaker, as the

stronger in war. Bastiat shews that, while in war, the stronger nation overpowers and destroys the weaker, in peace, on the contrary, the superior industry of one nation assists and develops the industry of its weaker neighbours.

This concludes the second series of these brilliant essays. Bastiat had a third series in course of preparation, when the revolution of 1848 brought on a more pressing danger, viz., the Socialist Doctrines, which, in truth, had much in common with Protection. Bastiat, though worn out with ill health and fatigue, caused by his labors on behalf of free trade, hastened to combat the new enemy, and with indefatigable zeal published a series of pamphlets in opposition to the chief Socialist Doctrines.

Propriété et loi. In the *Journal des Economistes*, 15th May, 1848.

The Socialists maintained that property was the mere creation of the law, which could take away, equally as well as give, the right of private property. Bastiat argues on the contrary, that property is not the creature of the law, but that it is the fruit of a man's industry, and is anterior to law, which is made for the purpose of protecting property, but does not create it.

Justice et fraternité.—In the *Journal des Economistes*. 15th June, 1848.

Ridicules the Socialist doctrine of *fraternité*.

L'Etat. In the *Journal des Débats*, 25th Sept. 1848. An amusing satire on what people expected the state to do.

La loi. 1850.

On the proper limits of the functions of the law.

Propriété et spoliation. In the *Journal des Débats*, July, 1848.

Refutes Considerant's doctrines of the *Droit au travail*.

Baccalauréat et Socialisme.

Advocates freedom of education, and the abolition of the necessity of university degrees for obtaining employment.

Protectionisme et communisme. January, 1849.

A letter to M. Thiers, who has always been a strong advocate for Protection, shewing the community between Protection and Socialism.

Spoliation et loi. In the *Journal des Economistes*, 15th May, 1850.

The *conseil général* of agriculture, manufactures, and commerce, demanded in April, 1850, that the professors of Political Economy, paid by the government, should adopt, and teach it, on protectionist principles, such as were dominant in France, and not from the free trade point of view. In this essay Bastiat ridicules this demand.

Guerre aux chaires d'économie politique. This is on the same subject as the preceding; it was published three years before the last, in 1847. The Protectionist Society in Paris, in that year, modestly demanded that the Government should put down all professors of Political Economy, failing in that, they required that they should be compelled to teach Protectionist doctrine.

Capital et rente. February, 1849.

It was one of the Socialist doctrines that interest should be abolished as unlawful. In this essay, Bastiat investigates the nature of capital and interest.

Maudit argent. In the *Journal des Economistes*. April, 1849.

This is a most admirable dialogue on the nature

and functions of money. We most earnestly commend it to the attention of every student in Political Economy. In no other place that we are aware of, are the functions of money set forth and explained with such clearness of conception. But of the whole, which is so excellent, we will only quote one passage:

"C'est bien le moment d'analyser la vraie fonction du numéraire, abstraction faite des mines et de l'importation.

"Vous avez un écu. Que signifie-t-il en vos mains? Il y est comme le témoin et la preuve que vous avez, à une époque quelconque, exécuté un travail, dont au lieu de profiter, vous avez fait jouir la société, en la personne de votre client. Cet écu témoigne, que vous avez rendu un service à la société, et, de plus, il en constate la valeur. Il témoigne, en outre, que vous n'avez pas encore retiré de la société un service réel équivalent, comme c'était votre droit. Pour vous mettre à même de l'exercer, quand et comme il vous plaira, la société, par les mains de votre client, vous a donné une reconnaissance, un titre, un bon de la République, un jeton, un écu, enfin, qui ne diffère des titres fiduciaires qu'en ce qu'il porte sa valeur en lui-même, et si vous savez lire, avec les yeux de l'esprit, les inscriptions dont il est chargé, vous déchiffrez distinctement ces mots; '*Rendez au porteur un service équivalent à celui qu'il a rendu à la société, valeur reçue constatée, prouvée et mesurée par celle qui est en moi-même.*'"

We feel obliged to call attention to this passage, on account of its absolute coincidence with what we have shown to be the fundamental conception of monetary science. We have shown, in the article CURRENCY, that several writers had previously had a dim conception of it. But no writer, that we are aware of, has seen it with such clearness, or expounded it with such vividness, as Bastiat. It is beyond all doubt one of the most important conceptions ever introduced into Political Economy. Fully understood and developed, it is the true basis of monetary science; and it is against this fundamental conception that Law's theory of money sins, and all those wild schemes of founding a paper currency upon land, goods, or the public funds, which are so popular. It shows at once that money and instruments of credit are homogeneous, the one being *general credit*, and the other *particular credit*; and that the fundamental idea of *currency* is debt, or services due to the owner of it. The coincidence between this passage, and, indeed, the whole of this dialogue, and our own theory of money, as developed in our *Theory and Practice of Banking*, 1855, and *Elements of Political Economy*, 1858, is so remarkable that it might be supposed that we had adopted it from Bastiat. We think it necessary to state that this is not the case. Although our own work was published in 1855, and Bastiat's pamphlet in 1849, we had no knowledge of its existence till the 31st of May, 1859. We therefore joyfully cede the priority to Bastiat, being only glad enough that our own views, formed independently, should absolutely coincide with those of so great a master of Economic science.

Gratuité du Crédit.—Bastiat's pamphlet, *Capital et Rente*, had made an impression on the working classes, and produced a schism in the Socialist ranks. The Socialist leaders found it

necessary to combat him. One of the editors of the *Voix du Peuple* began the attack, which was continued by Proudhon. Bastiat was allowed to reply in the same paper. The discussion is continued through thirteen letters, when Proudhon, finding himself worsted, brought it to an end by loudly proclaiming himself the victor, and saying to Bastiat, "You are doubtless a good and worthy citizen, an honest economist, a conscientious writer, a faithful representative, a genuine republican, and a true friend of the people, but your last words give me the right to tell you, M. Bastiat, that in a scientific point of view, you are a dead man." Bastiat, however, replied to him in a concluding letter, which showed that he was by no means so annihilated as Proudhon supposed.

Ce qu'on voit et ce qu'on ne voit pas.—This was the last of the brilliant series of pamphlets, and was published in July, 1850. In it Bastiat opens a new vein of argument, which is capable of great extension. An immense proportion of error in Political Economy has arisen by only looking at *one* circumstance in the case, and wholly neglecting a multitude of other considerations, which are necessary to be taken into account before we can ascertain the general result. In this pamphlet Bastiat has treated of a few of these errors. It is a vein of argument which is capable of being worked with great success, and to a vast extent. Bastiat, however, was not the first to make effective use of this line of argument. Bentham had already anticipated him in the use of this powerful weapon. Bentham's refutation of the universal craze of his day, the rage for colonies, is an admirable example of this argument. (BENTHAM.)

This volume also contains a few minor pieces. The preceding two volumes are specially devoted to the refutation of current errors. However brilliant they may be, such works, as Bastiat himself was aware, are only of the second order. Like Samson, they perish along with their victims. Lasting fame is only given to those works which expound truth. The last volume of the series is Bastiat's crowning work, and contains his conception of the fundamental principles of the science. But it was left unfinished. When Bastiat felt the deadly inroads of disease on his frail constitution, his only wish was to live another year to complete his work. But that was not granted. To the irreparable loss of economic science, his greatest work remains only a fragment.

"Now is the stately column broke,
The beacon light is quenched in smoke,
The trumpet's silver sound is still,
The warder silent on the hill!"

Vol. VI. *Harmonies Economiques.*

This is universally allowed to be the greatest of Bastiat's works. His aim is to investigate the objects and the fundamental conceptions of Political Economy, and this he does in a series of Essays.

I. *Organisation Naturelle.* In this he treats of the organisation of society, and shews that the object of Political Economy is to treat of the *voluntary* association of persons, as distinguished from the schemes of the Socialists, which are all founded upon *compulsory* association.

II. *Besoins, efforts, satisfaction.* In this he investigates the true limits and objects of the science of Political Economy. He determines that it is founded upon the wants of mankind, and their reciprocal services ministered to their reciprocal wants and desires:—

"C'est en effet, cette faculté donnée aux hommes, et aux hommes seuls, entre toutes les créatures, de *travailler les uns pour les autres*; c'est cette transmission d'efforts, cet échange de services, avec toutes les combinaisons compliquées et infinies, auxquelles il donne lieu à travers le temps et l'espace, c'est LA précisément ce qui constitue la science économique, en montre l'origine, et en détermine les limites. * * *

"Accomplir un effort pour satisfaire le besoin d'autrui, c'est lui rendre un *service*. Si un service est stipulé en retour, il y a échange de *services*; et comme c'est le cas le plus ordinaire, l'économie politique peut être définie: la *Théorie de l'échange*.

"Quelle que soit pour l'une des parties contractantes la vivacité du besoin, pour l'autre l'intensité de l'effort, si l'échange est libre, le doux services échangés *se valent*. La valeur consiste donc dans l'appréciation comparative des *services* réciproques, et l'on peut dire encore que l'économie politique est la *Théorie de la valeur*."

It will thus be seen that Bastiat's conception of the nature, the objects, and the limits of the science of Political Economy absolutely coincides with our own.

III. *Des besoins de l'homme.* In this Bastiat inquires into the nature of the wants of men, and he takes the opportunity of stigmatising the fundamental error of the second school of Political Economy, that *labor is the cause of value*.

"Mais il y a des écoles qui ont rapporté au travail seul ce privilège. Leur axiome est: *Toute richesse vient du travail; le travail, c'est la richesse*. "Je ne puis m'empêcher de prévenir ici que ses formules, prises au pied de la lettre, ont conduit à des erreurs de doctrine énormes, et, par suite, à des mesures législatives déplorables."

IV. *Echange.* In this Bastiat investigates the nature of an exchange, and shews the functions that money and instruments of credit perform in decomposing them, and shews their natural limits.

V. *De la valeur.* Bastiat then investigates the conception of value, and shews that it is entirely founded on the mutual appreciation of services interchanged, and not upon labor.

"Ainsi la définition du mot valeur, pour être juste, doit avoir trait non seulement aux efforts humains, mais encore à ces efforts échangés, ou échangeables. L'échange fait plus que de constater, et mesurer les valeurs, il leur donne l'existence. Je ne veux pas dire qu'il donne l'existence aux actes et aux choses qui s'échangent, mais il la donne à la notion de valeur.

"Or quand deux hommes ce cèdent mutuellement leur effort actuel, ou les résultats de leurs efforts antérieurs, ils se *servent* l'un l'autre, ils se rendent réciproquement *service*.

"Je dis donc: LA VALEUR, C'EST LE RAPPORT DE DEUX SERVICES ECHANGES.

"L'idée de *valeur* est entrée dans le monde la première fois qu'un homme ayant dit à son frère: Fais ceci pour moi, je ferai cela pour toi,—ils sont tombés d'accord; car alors pour la première fois

on a pu dire: les deux services échangés se valent. * * *

"De l'ECHANGE, nous travaillons pour nous nourrir, vêtir, abriter, éclairer, guérir, défendre, instruire les uns les autres. De là les services réciproques. Ces services, nous les comparons, nous les discutons, nous les évaluons; de là la VALEUR."

He shews that many circumstances affect value, and points out the false origins which have been attributed to the word.—

"On a jusqu'ici cherché le principe de la Valeur dans une de ces circonstances qui l'augmentent ou qui la diminuent, matérialité, durée, utilité, rareté, travail, difficulté d'acquisition, jugement &c.; fausse direction imprimée dès l'origine à la science, car l'accident qui modifie le phénomène n'est pas le phénomène. * * *

Ainsi le principe de la Valeur est pour Smith dans la matérialité, et la durée, pour Say dans l'utilité, pour Ricardo dans le travail, pour Senior dans la rareté, pour Storch dans le jugement, &c."

He then shews the confusion into which the science has been thrown by these contradictory conceptions, and shews that the only true source of value is *exchangeability*.

The natural consequence of this view, is that all services which are exchanged, are economical elements, whatever their nature be, whether material, or immaterial; and that all labour is *productive* labor, which produces any service which is wanted. Hence those persons who satisfy any of our mental desires, such as opera singers, are included in that category. Bastiat then points out at great length the erroneous conclusions to which the doctrines of preceding economists on the conception of value lead. The whole essay is most excellent.

VI. *Richesse*.—Examines into the contradictory notions which prevail with regard to wealth.

VII. *Capital*.—In this, Bastiat investigates the nature of capital, and shows that, from the fundamental conception of value already obtained, any service may be employed as capital. He also has almost succeeded in obtaining the true notion of credit:—

"Ce qui est plus surprenant encore, c'est que nous pouvons faire l'opération inverse, quelque impossible qu'elle semble au premier coup d'œil. Nous pouvons convertir en instrument de travail, en chemin de fer, en maisons, un capital qui n'est pas encore né, utilisant ainsi des services, qui ne seront rendus qu'au xxe siècle. Il y a des banquiers qui en font l'avance sur la foi que les travailleurs et les voyageurs de la troisième ou quatrième génération pourvoient au paiement; et ces titres sur l'avenir se transmettent de main en main, sans rester jamais improductifs." Here we have exactly the very doctrine that we have enforced, that CREDIT IS CAPITAL. Though it is not usual to pledge services which will only be rendered three or four generations hence, services to be paid for three or four months hence, constitute an immense article of commerce, under the name of Bills of Exchange.

He then discusses the nature of interest.

VIII. *Propriété, communauté*.—Discusses the nature of property, and refutes the socialist delusions on the subject.

IX. *Propriété foncière*.—Discusses the nature

and the right to property in land, and the views of English and socialist writers on the subject.

X. *Concurrence*.—Discusses the nature and effects of competition.

This terminates the first series of essays published by Bastiat. Sketches for several others were found among his papers after his death, and have been published along with the series, in this edition. We are glad to have anything proceeding from so eminent an author, but as they never received his *imprimatur*, they must not be considered as containing his final conclusion on the several points.

We trust that the extracts we have given from Bastiat's two greatest works may have the effect of sending our readers to the originals themselves, and we may now make a few general observations on them.

Although the *Sophismes Economiques* were published as detached essays, there is a thread of argument which runs through them all. They are brilliant portions of a general attack on a particular state of opinion, and it may perhaps be of some advantage to attempt to state it in a connected argument.

France was imbued to the core with Protectionist opinions, and her commercial system was becoming more exclusive every day. The Protectionist, or prohibitionist, system is to endeavour to foster native industry as much as possible, and to exclude all commodities which can be produced at home, under the idea that they displace and destroy national industry. The argument of the Protectionists was that wealth could only be got by industry, that labor was wealth, and that every means should be adopted to increase national labor.

To meet this argument, Bastiat says, that if every one had to provide everything for himself, he would naturally desire to obtain the greatest possible result, with the least possible labor. He would never suppose that the labor, the means by which the product was obtained, was the actual wealth. He would manifestly see that it is the *product* which is the wealth. The *beau idéal* of such a condition would be that everything he wanted should be obtained without labor at all, like sunlight, air, water, &c. And as the wealth of the whole state would be the aggregate of the wealth of each individual, the whole state would be the more wealthy just in proportion as the least amount of labor produced the greatest amount of products.

This being granted as perfectly self-evident, if we suppose the whole state to be composed of individuals working for themselves, the general result cannot possibly be different, if the notion of exchange is introduced. No matter how things are produced, the general result must be the same. The community in general must be wealthier, and better off, just in proportion as the greatest amount of products is obtained with the least amount of labor. In this proposition it can make no difference *how* things are produced, or who produce them, whether each man for himself, or each for his neighbours. This is so manifestly true, that any doctrine contrary to it is evidently false.

But he says that the necessary and avowed consequence of the Protectionist policy is to diminish the quantity of production, obtained by any given

amount of labor, or expenditure. Where then is the fallacy? He says that it arises from a confusion of ideas, which arises on the introduction of the notion of exchange. The doctrine of exchange introduces the division of labor, and as that is carried out to greater perfection, each man more and more confines himself to produce one particular thing by which he hopes to obtain all other things he wants, by exchanging with those who produce what he wants. Now between men's desires and their gratification, Providence has in general opposed obstacles, which can only be overcome by human labor. By the principle of the division of labor, each man confines himself to overcome one obstacle to the gratification of his fellow-citizens. The exertion he makes to do so is labor, and of course the greater remuneration he can get for his labor the better for him. Thus labor itself becomes an article of commerce, and is in fact wealth to the laborer. Each man separately, therefore, tries to make his labor as dear as possible, and as profitable to himself as possible; and he rejoices to see the obstacles, which it is his peculiar function to combat, increased and multiplied, because he hopes to obtain a greater reward for doing so. Thus in the increase of obstacles each man sees an increase of wealth, and hence the notion gets possession of bodies of men that to increase obstacles, to increase national labor, is to increase wealth. Thus, Bastiat shews that if the views of each producer are acted upon, the result must be a very great increase of labor as compared with the result. That is, the result must diminish as compared with the means used. Consequently, the general result of Protectionist legislation to the nation must manifestly be to diminish its wealth. The whole fallacy rests upon the idea that labor is wealth, that to multiply labor is to multiply wealth, and that the great aim of the legislator should be simply to increase national labor. Having thus arrived at the fundamental misconception of the subject, Bastiat devotes all his powers of ridicule, burlesque, sarcasm, wit, and humor to combat it. Thus we have the petition of the manufacturers of artificial light to put down the use of sunlight, their great natural enemy, which is so destructive to so large a branch of national industry, by superseding the use of their product;—the petition of the carpenter, that every one should be compelled to use *blunt* hatchets, in order to multiply national labor;—the petition that every one should be compelled to use his *left* hand, with the same object;—the Chinese apologue, and others.

Bastiat then shews the utter inconsistency of men's conduct in their own affairs, and their doctrine with regard to the state. The most red-hot Protectionist will always act upon free-trade principles in his own business, and do his utmost to produce the greatest effect with the least means. He will, for his own benefit, eagerly adopt every method to abridge his own labor, and produce as economically and quickly as possible. But when he comes to deal with the state, he does exactly the reverse. He then tries to do everything to increase the labor and diminish the result.

But, say the Protectionists, it is admitted that all wealth proceeds from industry, and consequently if foreign products are introduced cheaper than they can be manufactured at home, they will supersede native products, and thus *destroy* na-

tional industry, which is the source of wealth. No! says Bastiat, that is not so! If foreign products are introduced, they must be paid for by native products, and the quantity of native industry which is set free from manufacturing products at a dear rate, is employed partly in manufacturing *something else* to buy those cheaper foreign products with, and partly is capable of being applied to produce something else in addition to gratify some other wants. Thus as a body the national industry is not injured at all, and the general result to the nation is not only that they obtain the same quantity of produce as before, but in addition to that, the expense saved may be applied in obtaining other gratifications. Thus the national industry remains the same, but its products are greatly increased, and consequently the national wealth augmented. Thus we obtain the great doctrine that the national industry is not *destroyed*, but only *transferred*.

Again, says Bastiat, the very same arguments which have been used against foreign importations apply against machinery of all sorts, even the very humblest. The simplest machine or implement displaces human industry. They ought therefore all to be put down, steam-engines, carriages, roads, ploughs, beasts for agriculture, even spades. If the great object is to promote national industry, the only logical conclusion is to scratch the ground with our nails. This would greatly multiply the labor necessary to produce any required quantity of corn, and therefore would greatly increase the national wealth in that point of view. There has accordingly been, among the ill-informed, a very general prejudice against machinery, on the supposition that it displaces human industry, which has been adopted by Sismondi. But J. B. Say shewed that his fallacy lay in assuming that consumption is a fixed quantity, which is a monstrous error. Consumption is capable of being increased to almost any extent. Moreover, as Bastiat has satisfactorily shewn, and we believe he was the first to notice it, whatever fund is saved from the expense of the productions is ready to provide a maintenance for those whose labor is displaced by any machinery. Thus we arrive at the same general result as in the former case, no national industry is *destroyed*, it is only *transferred*, and for the same amount of industry the national enjoyments are greatly increased.

Thus Bastiat proves that foreign importations of commodities which can be produced cheaper abroad, and the improvements effected by machinery, are in all respects analogous. No doubt, in all states of transition from one system to another, a few individuals are the victims of the improvement, but the profit to the nation is immense.

Thus Bastiat shews that the Protectionist system is manifestly adverse to what is acknowledged to be national welfare.

It has often been remarked, that these were not truths discovered by Bastiat, but only expounded by him with great ability, and many are disposed to disallow his claim to be an original discoverer for that reason. Nor can it be denied that there is some truth in this. Bastiat himself acknowledges that to refute error is only the second glorious part. But that would not deprive him of his claim to be placed in the first rank of economists. The truths contained in the Sophismes were perhaps not new, but they had never before

been expounded with such admirable power and precision, nor one so specially adapted to the character of the people to whom they were addressed. The whole aim of these writings is to overthrow Protection by making it ridiculous. The *Sophismes Economiques* are the Don Quixote of Protection. The truths are so admirably put, that no one who reads them can feel that it is possible to think otherwise, and they are as amusing as a novel. No writings were ever better calculated to effect their object, and we are happy to be informed by M. Paillottet that their circulation has been immense, for such a work. Even men who are already persuaded of the truths they inculcate, cannot fail to derive benefit from them. The fallacies of Protection are in many respects extremely plausible, and it is easy for persons who live after their refutation, to sneer at those who once held them. The time may come, perhaps, when the whole world will be converted to free trade, but we fear that that time is still a very long way off, and until that time comes, the *Sophismes* will probably remain the most effective weapon to combat Protection.

The *Sophismes* then, we have seen, were only intended by Bastiat to clear the way to the establishment of the true system of Economic Science. The work in which Bastiat proposed to erect a positive system is the *Harmonies*.

All economists, of whatever school, are agreed that the word *Value* is the fundamental conception in the science. But between the first two schools of Political Economy and the third, there is a broad and fundamental distinction between their conceptions of the term. The most eminent writers of these two schools differ widely amongst themselves as to the cause and measure of value; but they all agree in this, they consider value to be *something inherent in the article itself*. The common feature of these two schools is that they make value a quality of the article, either materiality, durability, utility, or something of that sort. But a few writers have taken a completely different view of the subject. Aristotle in ancient times, Barbon in 1696, and more recently Mr. Samuel Bailey in 1826, Archbishop Whately in 1831, and Mr. Jennings, and we have no doubt others, have seen that value is not a quality which resides in the article itself, but that its source lies in the mind of the person who desires an article. Thus we have seen above that Aristotle says that the *source* of value is the *desire* of any person to possess a thing, and the *measure* of value is the *quantity* of things, usually money, he will give to obtain possession of it. Now this is manifestly a completely different notion of value to that entertained by the first two schools of Political Economy. And there can be no doubt whatever that mature reflection will shew it to be the true conception. For if value be any quality whatever of the article itself, it is quite clear that so long as that quality remains the same, the value of the article cannot change. But universal experience demonstrates the gross error of this view. It is notorious that the value of articles constantly change, while all their qualities remain the same. And the reason is plain, either the desire for them has changed, or the supply has changed, or both may happen, without in any way affecting the qualities of the articles themselves. And their values change accord-

ingly, which indubitably proves that value is something altogether *EXTERNAL* to the article. And this is why we say that Bastiat is one of the great founders of the *THIRD ERA* of Political Economy, because the whole of his essay on Value is for the express purpose of enforcing this doctrine, that value is not a quality of the article itself, but is the mutual estimation of two services which are exchanged.

Thus we at once obtain the great fundamental doctrine that *VALUE REQUIRES THE CONCURRENCE OF TWO MINDS*. Now this doctrine is utterly subversive of the two preceding schools of Political Economy, and exactly reverses the whole of their fundamental axioms. Ricardo and his followers consider labor exclusively as the source of value, and cannot conceive value to exist except as the result of labor, a principle which Mr. McCulloch and Mr. De Quincey have pushed to the most absurd extremes. In 1831 Archbishop Whately sent a deadly shaft into the heart of this fallacy. (*Lectures*, p. 167, 4th Ed. 1855). He says, "Now it is true, *if so happens*, by the appointment of Providence, that valuable articles are, in *almost* all instances, obtained by labor, but still this is an *ACCIDENTAL* not an *ESSENTIAL* circumstance." And this we have seen above is the very expression used by Bastiat, no doubt preceded him. Now we have shewn, in the Preliminary Discourse, that utility, materiality, durability, scarcity, and in fact all qualities which reside in the article itself, are to be rigidly excluded from the conception of value, and that it means simply *exchangeability*, and hence necessarily requires the concurrence of two minds.

Now this is precisely the doctrine that Bastiat enforces with all his usual clearness of conception and vivacity of illustration. This he considers to be the true fundamental conception of the science, and that its true objects and limits are to investigate and develop the theory of value, or of exchanges.

Now this is the restoration of the Aristotelian doctrine of value, and it is beyond all comparison the *GREATEST REVOLUTION that has been effected in any science since the days of Galileo*.

It is true that objections have been made by eminent writers against this definition of the science, as being too narrow, and they adhere to the definition of its being that of the production, distribution, and consumption of wealth, or some variation of it, as being more comprehensive. But we have shewn, (PRELIMINARY DISCOURSE; CONSUMPTION; PRODUCTION) that by giving a proper interpretation to the words *production and consumption*, *PRODUCTION AND CONSUMPTION together constitute EXCHANGE*, and that *distribution* depends upon the number and the character of the exchanges effected. We have shewn that an error infects the common use of the word consumption, exactly analogous to that which infects the common use of value. For while labor is the *accident* and not the *essence* of value, destruction is the *accident* and not the *essence* of consumption. In Political Economy, production is bringing some service to the market for sale, consumption is purchasing it, or taking it out of the market. Thus it is consumption and not labor which gives value to production. Two parties who wish to exchange are each producers, and each con-

sumers, of their own, and each other's, service. And it is the reciprocal consumption which gives value to the reciprocal production, and the complete transaction constitutes an exchange. Thus we see that the definition of Political Economy proposed by J. B. Say, and so much in favor with writers of the second school, is, in fact, reduced into the definition of the third school.

Having thus firmly settled that Political Economy is the science of exchanges, Bastiat naturally follows up this conception, and shews that any service which may be exchanged, whatever its nature be, material or immaterial, is an economical element, and is included in the science, and that as capital is only a particular method of employing an economical element, any service whatever may be capital.

He has also clearly seen and expounded in his *Maudit Argent* the true doctrine of money. He explains that it is the representative of services due to the possessors of it, or of *DÉBIT*, thereby at once establishing the great doctrine, that money and instruments of credit are homogeneous. This is the true fundamental conception of the Theory of Money, and is one of the most important conceptions ever introduced into Political Economy. It is the true criterion of the limits of the currency, and we have shewn its immense importance in the articles *CURRENCY* and *LAW*. We have shewn that Law's theory of money is contrary to this conception, and that it gives the true solution of that problem in monetary science which is so much discussed at the present day. (*BILL OF EXCHANGE; CREDIT; CIESZKOWSKI; HILL, EDWIN.*)

There is only one point on which Bastiat's clearness of conception has been at fault. We have seen above, that he says that not only every existing economical element may be used as capital, but that we may perform the *INVERSE* operation, and utilise future services by turning them into productive capital. Now, the utilisation of future services is *CREDIT*, and we have shewn (*PRELIMINARY DISCOURSE; CREDIT*) that instruments of credit in Political Economy are exactly analogous to *NEGATIVE QUANTITIES* in Algebra and Natural Philosophy, which have a real existence, although they were a sore puzzle to the early Algebraists. Now, this is exactly Bastiat's conception when he says that we may perform the *inverse* operation, and use future services as productive capital. Bastiat thus substantially acknowledges the great doctrine, that *CREDIT IS CAPITAL*. But in an article on *Credit*, in the *Ce qu'on voit et ce qu'on ne voit pas*, he has fallen into a most strange inconsistency; for he there ridicules the notion that credit is wealth, and treats it merely as the transfer of existing commodities. Now, we have shewn that Mr. Mill has fallen into exactly the same inconsistency (*CREDIT; MILL, JOHN STUART*). In one part of his work, he laughs at the notion that credit is productive capital; in another part, he maintains that bank notes are capital, and also bills of exchange, which he says rightly, are not generically different from bank notes. Now, what is the cause of these manifest self-contradictions in these two eminent writers? It is as plain as the sun at noon-day. They are most remarkable examples of the *Fallacy of Ambiguity*. In different parts of their works, they

form different conceptions of what credit is. In one part they only look to the transfer of the article, and then they deny that credit is capital; in the other, they look to the circulation of the instrument of credit, and see that it is used as a substitute for money, and then they maintain that credit is capital. It is almost needless to say that of these two conceptions, the latter is the true one, and the former erroneous. Instruments of credit are real independent economical elements, like the negative quantities in algebra, and may be used as capital.

This branch of the subject, however, is capable of immense development, strictly following from Bastiat's conception.

In short, as we have fully explained elsewhere (*PRELIMINARY DISCOURSE; CAPITAL*), confining Political Economy to the limits of positive material quantities, is exactly as if we were to bring back Algebra to the narrow bounds of Arithmetic, and to reject incorporeal forces from mechanics, and invisible elements from chemistry. The battle whether incorporeal elements are to be admitted into Political Economy was fought in the days of Galileo, who could not get his opponents to believe in gravity as a mechanical force, because it was incorporeal.

In 1856, without the slightest knowledge of Bastiat's works, or even of his name, but merely seeing the utter confusion that reigns in the current opinions on Political Economy, we said (*Introduction to Vol. II. Theory and Practice of Banking, § 85*) "THE TIME HAS COME WHEN ALL POLITICAL ECONOMY MUST BE RE-WRITTEN." And this we repeat. There is no doubt a vast quantity of fragmentary truth ascertained, but it is only detached portions, without due scientific connection. We have no doubt that Bastiat has obtained the true fundamental conception which will reduce into harmony and order this vast mass of ascertained truth, and shew its connection. We have no doubt that taking his conceptions, and developing them in a spirit exactly conformable to that on which the physical sciences are treated, Political Economy may be raised to a precision, a magnificence, a grandeur, and a compass which has never yet been dreamt of, and which will fit it in all respects to take an equal rank with the most complete of the physical sciences.

Bastiat breathed a wish (*Correspondence Vol. I. p. 204*), "Je ne dissimule pas cependant un vœu personnel. Oui, je désire que cette théorie (de valeur) rencontre, de mon vivant, assez d'adeptes, (ne fût-ce que deux ou trois,) pour être assuré, avant de mourir, qu'elle ne tombera pas, si elle est vraie. Que mon livre en suscite seulement un autre, et je serai satisfait." We rejoice to think that, quite independently, we have formed exactly the same fundamental notions on all the leading points in Political Economy as Bastiat did, and that this Dictionary is written for the express purpose of constructing the Science of Political Economy on those very conceptions. And we hope that this may bring about an *entente cordiale* between the economists of England and France.

It is to France that we must probably look in future for the best economists. It is natural to find the best physicians where diseases are most rife, the best organized fire brigades where fires

are most frequent. In England, the principles of free trade are triumphant, and almost unquestioned. Consequently there is no longer a necessity to defend what is assumed as a matter of course. But in France the case is different. That pleasant land is still deeply involved in economical darkness, and consequently it is there that we must henceforth expect the most brilliant efforts to enlighten it. Notwithstanding the illustrious men who, whatever their differences may be as to the best method of treating the subject, are all firmly united in the practical part of it, namely, the principle of free exchanges, the progress of these opinions is apparently but slow and disheartening, and yet from their scientific beauty they seem peculiarly adapted to find acceptance in the French mind. But there is reason to hope well. The sale of Bastiat's works has been immense, considering their nature. M. Pailletot has supplied us with some details which we think will interest our readers. He tells us that of Bastiat's smaller works, published in 12mo, and containing the *Sophismes* and the pamphlets, there have been sold 20,000 copies. Of *Cobden et la ligue*, in the first edition 1000 copies; of the *Harmonies*, first edition, 1000 copies, of the second edition, 2000 copies. At the end of last December, 1858, of his complete works, in 6 vols. 12mo, 16,600 volumes had been sold; and a fourth edition of the *Harmonies* is now being printed. This must indicate progress, too slow perhaps to gratify the wishes of the best friends of France, but it must be sure, and we fervently hope that it may not be long before the fruits of so much glorious labor may begin to manifest themselves.

BASTIDE D'IZAR, L.

Mémoire sur les contributions indirectes relatives aux boissons. Paris, 1830.

BASTIEN. Citoyen.

Pétition à l'assemblée nationale respecting assignats. Paris, 1792.

BASTON, THOMAS.

Observations on trade and a public spirit. London, 1832.

BATE, HENRY. The Rev., afterwards Sir Henry Bate Dudley, Bart.

A few observations respecting the present state of the poor, and the defects of the poor laws, with remarks upon parochial assessments. London, 1802.

BATH, The Earl of, (Pulteney.)

A state of the national debt as it stood on the 24th December, 1716, with the payments made towards its discharge out of the sinking fund, &c., compared with the debt at Michaelmas, 1725.

An enquiry into the conduct of our domestic affairs from 1721 to Christmas 1733, in which the case of our national debts, the sinking fund, &c., are particularly considered. London, 1734.

Case of the sinking fund, and the right of the public creditors to it considered. London, 1735.

Considerations on the present state of public affairs, and the means of raising the necessary supplies. London, 1739.

BAUDEAU, NICHOLAS, L'Abbe.—One of the most able and ardent of the disciples of Ques-

nay, or the Physiocrate school of Political Economy, was born at Amboise, 27th April, 1730. Being destined for the church, he began to study for it, and he became a regular canon, and Professor of Theology in the Abbey of Chancelade. He was some time after invited to the capital by M. De Beaumont, the Archbishop, a zealous anti-Jansenist. His taste inclined more to science than theology, and he abandoned his clerical position. In 1765 he founded a journal named *Ephémérides du Citoyen*, or *Chronique de l'esprit national*, in which he warmly opposed the doctrines of Quesnay. Dupont de Nemours was Editor of the *Journal de l'agriculture, du commerce, et des finances*, also founded in 1765, which was a common fighting ground for the partisans and the opponents of the mercantile system. Le Trosne, who was king's advocate in the bailiwick of Orleans, attacked some of the doctrines maintained by Baudeau in his paper. The latter prepared a series of letters in defence of them, the first of which was inserted in Dupont's paper. The editor inserted it with some comments of his own, which had the effect of converting Baudeau, who was a sincere inquirer after truth, and he henceforth became an ardent disciple of Quesnay. In 1767, the partisans of the mercantile system had strength enough to drive Dupont de Nemours from the editorship of his paper, and he took refuge with Baudeau. They were joined by the Marquis of Mirabeau, and the paper was then called *Bibliothèque raisonnée des sciences morales et politiques*, and became the earnest advocate of free trade doctrines, and the uncompromising antagonist of the spirit of monopoly, in all its shapes and forms. In May, 1768, Baudeau resigned the editorship to Dupont de Nemours, but, nevertheless, continued one of its most active contributors. Soon afterwards the Bishop of Wilna gave him an ecclesiastical appointment in Poland, which did not seem to have many attractions for him, as he soon returned to Paris.

In 1772 the publication of the *Ephémérides* was stopped by a royal command. When Turgot was appointed minister, Baudeau revived his paper under the name of *Nouvelles Ephémérides économiques*, ou *Bibliothèque raisonnée de l'histoire, de la morale, et de la politique*. The publication lasted from January, 1775, to June, 1776, when that great minister being compelled to resign, the paper stopped.

In 1771 Baudeau published his *Première introduction à la philosophie économique*, ou *Analyse des états politiques*, which is one of the best and most lucid expositions of the Physiocrate doctrines. During the administration of Turgot, he published a reply to Necker's work on the corn laws. Necker was a strong protectionist, and the party opposed to the government and free trade considered it a masterpiece. Baudeau, however, completely answered him. He had also written a memoir against the butchers' bank in 1768, which, however, had not obtained permission to be published. In 1776 this was published in the *Ephémérides* for February, and in the same month the bank, called *Caisse de Poissy*, was suppressed by Turgot. (Turgot.) The farmers of the bank prosecuted him for libel, but Baudeau defended himself with such success as to turn

public opinion in his favour, and the farmers were obliged to abandon their case.

But, though he gained his cause, it was a disastrous victory. Turgot fell, and the anger of his defeated opponents obtained an order commanding him to maintain silence on all subjects of public administration. As he seemed inclined to resist this edict, a *lettre de cachet* was issued, exiling him to Riom. After this, Baudeau seems only to have published one short tract against Necker's system of finance and his passion for loans.

Baudeau's mind is said to have given way during the latter years of his life, and he is supposed to have died in 1792. He was a man of very varied acquirements. He was a member of the Academy of Bordeaux. In this place we shall only enumerate his economical works. We have considered the doctrines of the school of Political Economy, of which he was one of the most distinguished members, in the PRELIMINARY DISCOURSE, and under PHYSIOCRATES.

Baudeau was the founder of, and a very active contributor to the *Ephémérides du Citoyen*, or *Chronique de l'esprit national*, 1765-67, which supported Protectionist opinions.

In 1767 Baudeau was converted to free trade opinions, and his journal was henceforth called *Ephémérides du Citoyen*, or *Bibliothèque raisonnée des sciences morales et politiques*, Paris 1767-1772.

In the first and ninth numbers of this work for 1768, he advocates the entire and complete freedom of trade in corn.

The chief articles in this journal which may be cited are one in Part I. for 1767, to prove that the *produit net* of land is the only national revenue, and that upon it all the taxes and debts of the state fall.

Part II.—*Recherches politiques sur les terreurs populaires qui cause le bon prix des grains, et sur les moyens de les calmer. De l'origine et de la nécessité des hérédités foncières.*—Part III. *Du faste public et privé—Vrais principes du droit naturel.* Part VI. *Réflexions sur la réforme dans la répartition des tailles.* Part VIII.—*Du sens du mot STERILE appliqué à l'industrie.* Part IX.—*Dissertation sur la non-productivité de l'industrie.* Part XI.—*Explication du Tableau économique à M. de * * * * ** *Réflexion sur l'ordre naturel et essentiel des sociétés politiques, et critique des "Eléments du Commerce" de Forbonnais.*

1768. Part I.—*Avis au peuple sur son premier besoin, ou petits traités économiques sur le blé, la farine, et le pain: 1re partie, De l'entière et parfaite liberté du commerce des blés.* Part II.—*Avis au peuple, &c. : 2de partie, Traité sur la monture des grains, et sur le commerce des farines.* Parts IV and V.—*Avis au peuple, &c. : 3me partie, Traité sur la fabrication et le commerce du pain, et sur le vrai moyen de pourvoir aux approvisionnements publics.* Part IX.—*Résultats de la liberté parfaite, et de l'immunité absolu du commerce des grains, de la farine, et du pain; et conséquences pratiques de ces résultats.* Parts X and XI.—*Avis aux honnêtes gens, qui veulent bien faire, dans lequel on leur indique les moyens de procurer au pauvre peuple du pain meilleur et à meilleur marché.*

1769. Part X.—*Suites des Avis au peuple sur la cherté du pain et le monopole des blés.* Part XII.—*Lettres à M. l'abbé Galiani, sur ses Dialogues anti-économistes.*

770. Part VII.—*Lettre à M. Béardé de l'Abbaye, sur sa critique prétendue de la science économique.*

In the *Nouvelles Ephémérides* his principal economical writings are—

1775. Part II.—*Réfutation d'une lettre apologétique sur les corvées.* Part III.—*Mémoire détaillé sur les taxes payées ci-devant par le poisson de mer, frais ou salé, qui se consommait dans la ville de Paris.* Part IV.—*Lettre à M. Necker, sur son éloge de Colbert.* Part V.—*Le profit des peuples et le profit du roi, éclaircissement demandés à M. Necker sur ses principes économiques, et sur ses projets de législation, au nom des propriétaires fonciers, et des cultivateurs français.*

1776. Part II.—*Mémoire sur la Caisse de Poissy.* Parts IV and V.—*Observations économiques à M. l'abbé de Condillac, sur son livre "Du Commerce et du Gouvernement."* Part VI.—*Mémoire sur les affaires extraordinaires, faites en France pendant la dernière guerre, depuis 1756 jusqu'en 1763.*

His writings not inserted in the *Ephémérides* are:—

Idées d'un citoyen sur l'administration des finances du Roi. Paris, 1763.

Idées d'un citoyen sur le commerce d'Orient, et sur la Campagne des Indes. Amsterdam and Paris, 1765.

Idées d'un citoyen sur les besoins, les droits, et les devoirs des vrais pauvres. Amsterdam, 1765.

Lettres sur les émeutes populaires, qui causent la cherté des grains, et sur les précautions du moment. Paris, 1768.

Lettres d'un citoyen sur les vingtièmes, et autres impôts. Amsterdam, 1768.

Première introduction à la philosophie économique, ou Analyse des états policés. Amsterdam, 1771.

Questions proposées à M. Richard de Glasnière, sur son plan d'imposition soi-disant économique. Paris, 1774.

Sur l'état présent de l'agriculture en Angleterre traduit de l'Anglais, avec des remarques sur l'état de l'agriculture en France. Paris, 1778.

Principes économiques de Louis XII., et du Cardinal d'Amboise, de Henri IV., et du duc de Sully, sur l'administration des finances opposés aux systèmes des docteurs modernes.

Baudeau announced a new edition of the *Economies Royales* of Sully, but only two volumes appeared.

BAUDOUIN, A.—Formerly Secretary to the 1st Chamber of Commerce in Algeria.

Annuaire des Institutions de crédit financier, commercial, et industriel de la France, et des principales places de l'Europe. Paris, 1853.

BAUDRILLART, HENRI.—Assistant Professor of Political Economy at the *Collège de France*, was born 28th November, 1821, the son of a lawyer. He was educated at the *Collège Bourbon*, and gained the prize in philosophy in 1841. In 1846 he gained the prize at the *Académie Française*, for his éloge on Turgot; and, in 1850, for that on Madame de Staël. In 1852, on the recommendation of M. Michel Chevalier, he was appointed his assistant professor at the *Collège de France*; and, in 1853, he was awarded

a prize at the Institute for his *Bodin et son temps*.

Jean Bodin et son temps. Paris, 1853.

Manuel de l'Economie Politique. Paris, 1857.

This manual is a summary of the lectures delivered by M. Baudrillart, in his capacity of professor, and, therefore, it demands our attention. We are happy that we may place him in the third school of Political Economy, namely, the one that considers exchange to be the fundamental conception of the science. He says, p. 8, "Nous définirons dès à présent l'économie politique, la science qui a pour objet la manière dont la richesse se produit, s'échange, se distribue, et se consomme; or, comme rien de tout cela n'a lieu sans travail, et sans échange, et comme d'une autre côté, aucun de ces travaux et des ces échanges ne s'opère au hasard, il s'ensuit que les lois qui président au travail, et à l'échange, forment le véritable champ de science économique." Also, p. 18, "Sous les formes diverses qu'il revêt, échange d'idées, échange de sentiments, l'échange est le lien unique de la société, il en est un des principaux sous sa forme spécialement industrielle. Sans trop faire violence au langage, peut-être peut on dire que certain animaux travaillent, on peut aller peut-être jusqu'à prétendre que la fourmi capitalise, mais ils n'échangent point. L'échange est la sociabilité en action. * * * L'échange, posé en tête de l'économie politique résume tout la reste. Il n'y pas un seul fait économique qui ne suppose ce fait, et qui ne s'y ramène." He also well draws the distinction between Political Economy and technology, and also between it and statistics.

He excludes immaterial products from Political Economy. As we have fully examined the subject in the PRELIMINARY DISCOURSE and under CAPITAL, we shall say no more about it here.

On the meaning of Value he says: "Il résulte de ce qui vien d'être dit, que la valeur ne désigne qu'un rapport d'échange, elle ne fait qu'exprimer la puissance d'acquisition d'un objet par rapport aux autres." He adopts Bastiat's definition of Value. (BASTIAT.)

He adopts the principle that supply and demand regulates all exchanges, p. 219; and he sees that Ricardo's law of cost of production is only a particular case of the general law.

It follows from the preceding extracts, that M. Baudrillart holds the same fundamental conception of the nature of the science as ourselves, although his work is divided into the heads of production, distribution, and consumption. We think it may be better treated by exclusively adopting the conception of exchange.

On the subject of money, M. Baudrillart has not advanced beyond J. B. Say, and he has passed over the true fundamental conception of it, which Bastiat so clearly saw. (BASTIAT.)

But we regret to say that on the subject of credit M. Baudrillart has gone altogether astray, and has adopted the ideas of M. Cieszkowski, the modern Law. Most truly he says that the importance of economical laws is apparent when we reflect on the evil of adopting false ones. A false view of credit will ruin thousands of families, and perhaps compromise the future of a nation. He then cites the fatal results of the theories of Law, and the Convention. But, marvellous to say, he has adopted the very ideas he so strongly con-

demns. The doctrines of Cieszkowski are the identical doctrines of Law.

M. Baudrillart treats instruments of credit as signs of wealth, and classes them together with Dock warrants. This is as we have shewn (BILL OF LADING; DOCK WARRANT; BILL OF EXCHANGE; CREDIT; LAW) the very fundamental error upon which Law founded his theory of money. And the clear understanding of the fundamental distinction between them, is at the very root of Political Economy.

M. Baudrillart does not give any opinion on the disputed question whether bills of exchange are currency of not, but he refers to M. Chevalier's *La Monnaie*, which he says exhausts the subject. We may therefore infer that M. Baudrillart adopts the opinions of his eminent colleague. Now M. Chevalier entirely adopts the opinion that bills of exchange are currency, together with money. If, then, bills of exchange and money are both currency, they must both be of the same fundamental nature. Consequently, if bills of exchange are signs of wealth, money must also be a sign of wealth. The very error which is at the root of Lawism, and which the early economists had so much labor in combating! Oh! no; money is not a sign of wealth, nor are bills of exchange, or instruments of credit. Bills of lading and dock warrants are NOT CREDIT. Money and instruments of credit are independent entities; bills of lading and dock warrants are not independent entities. We earnestly entreat M. Baudrillart to fly from the doctrines of Cieszkowski as from the plague.

BAUDRY.

Propriété littéraire. Paris, 1850.

BAXTER, S. S.

The poor laws stated and examined, the evils of the present system exposed, and a plan suggested for placing such laws on a firm and equitable basis. London, 1831.

BAYARD, F. L.

Mémoires sur les grandes ressources en finances de la république française. Paris, 1797.

BAYLDON, J. S.

The art of valuing rents and tillages. London 1823. Fifth edition, enlarged by J. Donaldson, London, 1840. Enlarged and adapted to the present time by R. Baker, London, 1856.

A treatise on the valuation of property for the poor's rates. London, 1828.

BAYLIS, EDWARD.

The arithmetic of annuities, and life assurance, or compound interest simplified, &c. London, 1844.

BAZARD AMAND. Born on the 19th September, 1791, was one of the founders of *carbonarism* in France. In 1815, he distinguished himself in the defence of Paris. He then obtained a lucrative appointment in the prefecture of the Seine. Soon afterwards he plunged into politics and secret societies, one of which was called *Amis de la vérité*. Bazard was considered as the chief of these societies, which became

dangerous to the throne of the Bourbons. These societies being found out, Bazard hastened to give information to the authorities, which, of course, brought on him the bitterest reproaches from his associates. He then withdrew from these conspiracies, and devoted himself to philosophical pursuits, and adopted the opinions of St. Simon. In 1825 he became one of the editors of their paper, *Le Producteur*. This paper was discontinued in 1826, from want of support, and Bazard and the St. Simonians, determined to elaborate and complete their scheme in private discussion, before giving it to the world. In these discussions, Bazard's talents were so conspicuous, that he became the acknowledged head of the sect. In 1828, the St. Simonians again came before the world by commencing a series of public conferences, and they started a new paper, *L'Organisateur*. The revolution of July, 1830, was a grand opportunity for these social reformers to ventilate their theories, and Bazard became very popular. The sect became so numerous now, that they purchased *le Globe*, a daily paper, which had maintained a struggling existence for some years, which henceforth, during the short remainder of its career, became the organ of their opinions.

Bazard had a rival, Enfantin, in the sect, and although they continued to act for some time together, differences at length broke out, and in 1831, a formal schism took place. Enfantin seems to have been much the more powerful minded man of the two, and Bazard found himself alone. He then commenced a vehement attack on Enfantin, charging him with all sorts of fraud. But he was no match for his adversary, and in a debate in which he was hard pressed by Enfantin, who charged him with inconsistency, he was struck with apoplexy. He retired to Courtry, near Montfermeil, and died there on the 29th July, 1832. The sect was soon afterwards broken up the Government. For an account of the doctrines of the sect, see **SOCIALISM**.

BAZINGHEN, FRANÇOIS ANDRÉ ABBOTT DE, was born 17th July, 1710, at Boulogne-sur-mer, of a family of English origin. He was educated at Paris, and adopted the profession of the law. In 1741, he was appointed judge in the *Cour des Monnaies*, which office he held for 30 years. He then retired to his native town, and took a very active part in promoting local improvements of all sorts, especially in founding an agricultural society. He died at Paris, in 1791. Besides many other writings, he published :

Traité des monnaies, et de la juridiction de la Cour des monnaies, en forme de dictionnaire. Paris, 1764.

This work, the fruit of 20 years' official experience, has always been held in the highest estimation, as one of the most complete on the subject.

Tables des monnaies courantes dans les quatre parties du monde. Paris, 1767.

BAZLEY, THOMAS. Formerly president of the Chamber of Commerce, and now M.P. for Manchester.

A lecture upon cotton as an element of industry. London, 1852.

BEAL, JAMES.

Free trade in land; an enquiry into the social and commercial influence of the laws of succession, and the system of entails, as affecting the land, the farmer, and the labourer; with observations on the transfer of land. London, 1855.

BEARBLOCK, JAMES.

A treatise upon tithes. 4th edition. London, 1819.

BEARDE DE L'ABBAYE. Born probably at Aix-la-chapelle, where he was a doctor of law, civil and canon, about the beginning of the 18th century. He died at Paris, in 1771.

Essais d'agriculture. Hamburg, 1768.

Dissertation qui a remporté le prix à la société libre économique de St. Petersburg en l'année 1768, sur cette question—Est il avantageux à un état que les paysans possèdent en propre du terrain, ou qu'ils n'aient que des biens meubles, et jusqu'où doit s'étendre cette propriété? Amsterdam and Paris, 1769.

Recherches sur les moyens de supprimer les impôts précédées de l'examen de la nouvelle science. Amsterdam, 1770.

La félicité publique considérée dans les paysans cultivateurs de leurs propres terres. From the Italian of Vignoli. Lausanne, 1770.

BEAUJOUR, LOUIS AUGUSTE, BARON DE.

A view of the commerce of Greece, formed after an annual average from 1787 to 1797. Translated by T. H. Horne. London, 1800.

BEAULIEU, CHARLES GILLOTON DE. A follower of Quesnay. He was a native of Brittany, and a very voluminous writer, but little is known of him.

Démonstration des vices de l'impôt territorial en nature, Mémoire sur la suppression de certains impôts, adressé à l'assemblée des notables. 1787.

Mémoire sur les droits féodaux présenté à l'Assemblée Nationale. 1789.

Réflexions sur la nécessité d'établir l'enseignement de la science de l'économie politique.

De la nécessité de rendre nos colonies indépendantes, et de supprimer notre acte de navigation.

BEAUMONT, CHARLES. *A treatise on the Coal trade.* London, 1789.

BEAUMONT, JEAN LOUIS MOREAU DE. Born at Paris in 1715, was successively intendant of Poitou, Franche Comté and Flanders. He died at Mesnil, 22nd May, 1785.

Mémoire concernant les impositions et droits en Europe. Paris, 1787.

BEAUMONT, J. T. BARBER.

An Essay on Provident or Parish Banks. London, 1816.

BEAUSOBRE, LOUIS DE.—Born at Berlin, 22nd August, 1730, and died 3rd December, 1783.

Introduction générale à l'étude de la politique, des finances et du commerce. Amsterdam, 1771.

Introduction à la Statistique.

BEAUVAIS, J.*Des obstacles au crédit.* Paris, 1850.**BEAVES, WYNDHAM:***Lex Mercatoria rediviva; or, the Merchant's Directory.* London, 1761. Fifth edition enlarged, by Mortimer. London, 1792.*A civil, commercial, political, and literary history of Spain and Portugal.* London, 1793.**BECUNE, V.***Code de Commerce; livre 1er.* Paris, 1846.**BECCARIA BONESANA, CESARE, MARCHESE.**

—This very celebrated philosopher, one of the great founders of the science of Political Economy in Italy, was born at Milan, on the 15th of March, 1738. He was the son of the Marquis Gian Saverio Beccaria Bonesana, and of Donna Maria Visconti da Rho. The family originally came from Pavia, of which the Beccaria family held the government for a short time in the fourteenth century. He was educated at the Jesuits College at Parma, where he staid eight years. He is described as having been very irregular in his application to work, at one time active enough, but at others, and for the most part, indolent and languid. The fact appears to have been that he was soon disgusted with the frivolous nature of the studies prescribed, the feeble imitation of classical phrases, which was called learning, and the barbarous jargon of the syllogisms, which were misalled argument.

Beccaria being thoroughly unsatisfied with the routine course of study, applied himself to mathematics and philosophy, as the only studies capable of giving vigor and precision to thought, but the current philosophy of the day was as bad and weak as could be. In this state of utter languor and disgust with existing studies, the fame of Montesquieu's *Lettres Persanes*, which were creating an extraordinary sensation in France and Italy, reached him. The freshness and vigor of the French style captivated him: he felt that there was something at last worth reading, and he threw himself with his whole ardor into the works of the French philosophers, D'Alembert, Diderot, Helvetius, and Buffon.

Matters however did not go smoothly with him. The extraordinary ardor with which he embraced the views of the French philosophers highly displeased his parents, and a marriage he made further irritated them. In consequence he had to leave his father's house, and he was thrown upon the world without a profession. At this time he suffered much distress from the uncertainty of his future, which was aggravated by his being naturally of a melancholy and timid disposition.

At this time, fortunately for himself, he became acquainted with a stronger mind than his own, and one more able to buffet with the caprices of fortune—Pietro Verri, who had just returned from the army in Silesia, in 1760, and who afterwards became so famous as an Economist and an administrator. (VERRI, PIETRO.)

Verri soon saw through the character of his friend, that he was a man of uncommon genius and a noble disposition, but of a temperament so melancholic and timid, that he never would have the courage to do anything, without the inspiration of a stronger mind.

Verri therefore endeavoured to think of some plan, by which he might engage Beccaria to appear before the public, and display the ability which he really possessed. A good opportunity soon presented itself. The government of the Milanese had been left in the most disgraceful state by the Spaniards; everything was in disorder, and among other things the bad state of the currency caused universal distress among all traders. Verri himself had commenced those studies in Political Economy which made him afterwards so famous, and he inoculated Beccaria with the subject. The evils of the degraded currency affected every one, and Verri saw that if he could persuade Beccaria to write a good pamphlet on the subject, it would necessarily interest every one, and bring him before the public.

In 1762, accordingly, Beccaria wrote his pamphlet on the *Bad State of the Milanese Currency*, which was printed at Lucca. The result fully answered Verri's expectations. It created a very general interest, and Beccaria's name became at once known to the public. A great controversy immediately arose. The Marquis Carpani, who thought he knew a great deal about the matter, was piqued at Beccaria writing about it, and he published a tract called *Risposta ad un amico sopra le monete*, in which he advocated the very same doctrines that Mr. Lowndes had done under similar circumstances in England (LOWNDES), namely, that in the new coinage, a new valuation of gold and silver should be made, and that the quantity of the metal in the new coin should be conformable to the price of bullion, as rated in the degraded current coins.

On the 21st April, 1762, a proclamation appeared denouncing heavy penalties against all who carried gold and silver out of the state. This was the 88th which had been published since the beginning of the 17th century, but of course like all similar ones everywhere else, it had not the slightest effect. Beccaria's tract appeared in July, 1762, and so low was the state of economical knowledge, that its principles were very generally disputed, just as those of Horner were afterwards in England. Carpani, whose views were refuted in it, as well as several others, attacked him. But he did not want allies; the two Verri supported him, and in a humorous dialogue ridiculed the doctrines of Carpani and the lawyers. In Turin, Beccaria's tract was warmly applauded.

Verri's object was obtained; Beccaria's constitutional timidity was overcome; he had appeared before the public, and had secured attention, if not conviction. A society of young men was formed, among whom, besides Beccaria and the two Verri, was Frisi, the celebrated mathematician, and others. This society started a paper somewhat similar in style to the *Spectator*, and named it *Il Caffè*. It discussed all subjects, philosophical and literary, and soon attained great fame, from the vivacity and genius with which the various subjects were discussed. It lasted from June 1764 to June 1766, and is still considered as the best paper of its kind which has ever appeared in Italy.

But however excellent and spirited the papers in *Il Caffè* were, Beccaria published in 1764 the work which immediately procured him a European reputation, and which has been the chief cause of his fame with posterity. This was his

De' delitti e delle pene, which was published anonymously at Leghorn, in July, 1764. As this work is beyond the scope of our present subject, we cannot of course give any account of it, beyond what affected the author's personal history. It is sufficient to say that its effect was instantaneous. It was already out of print in August; within half a century it went through twenty-eight editions in Italy, and it was translated into twenty-two languages, being more than any other book except the Bible. It excited the warmest admiration throughout the whole world. Lord Mansfield never mentioned the name of the writer without a token of respect. Berne sent him a medal, and all countries vied in doing him honor.

In 1766, he was invited to Paris by all the literary world, along with Pietro Verri. But he was greatly averse to move from his own country. Pietro's public duties prevented him from going, but he strongly urged Beccaria to go, and after great difficulty persuaded him to undertake the journey, and sent his brother Alessandro with him, to strengthen his resolution. At last he started, but when he reached Lyons, his constitutional melancholy so completely overcame him, that nothing would induce him to go on. Pietro Verri wrote to him very strongly to continue his journey, and at last the entreaties of Alessandro prevailed, and he reached Paris, where, of course, he was most warmly received by all the literary society. But all the favor and kindness of the French failed to reconcile him to absence from his own country;—on the contrary, it rather wearied and annoyed him. His melancholy returned stronger than ever, it became a sort of morbid nostalgia, and nothing could keep him from hurrying back to Italy, where he arrived quite unexpectedly, without even stopping to see Voltaire, much to Verri's disgust.

Catherine II., of Russia, was anxious to secure the services of so famous a man as the author of the *De' delitti e delle pene*, and invited him to St. Petersburg, with a promise of suitable employment. Beccaria communicated this offer to Count Firmiani, the Austrian Governor of Lombardy, who was a liberal-minded man. He reported it to the Government at Vienna. Count Kaunitz earnestly desired him not to lose so estimable a man for the country. Not wishing, however, to impede his career, Beccaria was allowed to go to Russia, on the promise that he would return. He decided on remaining at home, and in Nov. 1768, a chair of Political Economy was founded for him in the Palatine school of Milan, under the name of *Scienze Camerali*.

This was the second chair of Political Economy which was founded in Italy, and the third in Europe,—the first being that for Genovesi, at Naples, in 1754 (GENOVESI), and the second, that at Stockholm. Beccaria gave his first lecture on the 9th January, 1769. This was published; but the remainder of the course was unfortunately not published till 1804, in Custodi's collection of the Italian Economists, of which Beccaria's writings form the 11th and 12th volumes of the modern part. As we have given a somewhat full analysis of Beccaria's views, which are extremely interesting, inasmuch as they were delivered several years before the *Wealth of Nations* was published, we shall say no more about them here.

Henceforth Beccaria published nothing, for the last twenty-five years of his life he was of great use in the administration of his country, but he added nothing to the stock of science. In fact, his constitutional timidity prevented him from putting before the public views which would provoke opposition. He himself said that he was willing to be the apostle of humanity, but not its martyr. In April, 1771, he was elected a member of the *Supremo consiglio d'Economia*. This Board having been suppressed, he was appointed a member of the *Magistrato politico-camerale*, with the rank of councillor, and on the 19th January, 1791, a member of the Committee for reforming the system of civil and criminal procedure.

Though he published nothing, the Board of which he was a member, comprising his friends the two Verri, Neri, Carli, and Frisi, effected an entire reform in the administration of the province. Beccaria was frequently called upon for reports upon various subjects. These, with one exception, have not been published, but the Baron Custodi, who was allowed to read them, has pronounced the warmest eulogium upon them. In consequence of one of them the Milanese currency was entirely reformed, and in another he recommended the decimal system of weights and measures, which was afterwards carried out by the French convention.

A stroke of apoplexy carried him off on the 28th November, 1793. He was twice married. By his first wife he left a daughter, and by his second, a son.

Beccaria's economical writings which have been published are:—

Del disordine, e de' rimedj delle monete, nello Stato di Milano, nell' anno 1762.

This excellent little tract was, as above stated, the first Beccaria published, at the request of Verri. It contains a great deal of thoroughly sound doctrine on the subject of money, and value. He saw through the fallacies which so long blinded so many persons in England in 1811, and subsequent years.

He begins by certain definitions, among which are, "Il *valore* è una quantità che misura la stima che fanno gli uomini delle cose."—"Value is a substance which measures the estimation in which men hold things." "Il *conio* fatto al metallo nè aggiunge nè toglie valore alle monete, non altro essendo, che un solenne attestato di che rappresenta la nazione della quantità e finezza del metallo."—"Coining the metal neither adds to, nor takes away from, the value of money, as it is nothing else than a formal attestation which informs the nation of the quantity and fineness of the metal."

Beccaria then bases his arguments on three propositions:—

I. Una equal quantità di metallo dee corrispondere ad un equal numero di lire in ogni moneta.

II. Come il totale di un metallo circolante è al totale dell' altro, così una data parte di un metallo deve essere ad una equal parte dell' altro metallo in ogni moneta.

III. Nello stabilire il valore delle monete, non si dee considerare che la pura quantità di metallo fino, nessun conto facendo nè della lega, nè delle spese del monetaggio, nè della maggiore raffinazione di alcune monete.

Of these propositions the first and third are undoubtedly true. The second, in the terms he has stated it, is as unquestionably false, because it is perfectly well known that the quantity of silver in existence is much more than fifteen times as great as the quantity of gold. The best authorities place it at forty times, though of course it must be to a great extent a matter of conjecture. The true reason why silver being forty times as abundant, is only fifteen times less valuable, is explained in the *THEORY OF PRICES*. Beccaria is opposed to any seigniorage being charged on the coinage. It is strange that so excellent an economist as Beccaria should not have shaken himself free from the notions of the mercantile system. "Questo stato di guerra, in cui Obbes ha creduto essere le genti, si verifica nel commercio e nelle monete, dove ogni nazione cerca d'arricchirsi coll' impoverimento altrui, e combatte più coll' industria, che colli armi."—"That state of war, in which Hobbes believed nations to be, is true in commerce and money, where each nation tries to enrich itself at the expense of every other, and fights rather with industry than with arms." As Beccaria wrote this treatise very young, we need not be too severe upon him for not having emancipated himself from the universal prejudice of his day. He points out the inutility of edicts in regulating the value of money, or anything else. In the second part, Beccaria applies his principles to the circumstances of Milan, and shews that the same era in which tampering with the currency, and the issue of base money took place, was the very one in which Italian commerce declined. He gives some valuable tables of the currencies of different countries. But he had not learnt the doctrine of Locke, that there ought to be only one standard metal. He wished to adopt the medium value of gold and silver throughout Europe; and fix the value of gold to silver at $14\frac{1}{2}$ to 1.

Elementi di Economia Pubblica.

This was the course of lectures delivered by Beccaria in 1769, but not published till 1804, in Custodi's collection of the Italian Economists. It has also been published in the *Classici Italiani*, Milan, 1822, and separately at Florence, in 1854. The opening discourse, or *Prolusione*, was, however, published in 1769, and translated into English. This course derives additional interest from the fact that it was delivered seven years before the publication of the *Wealth of Nations*, and it will be clearly seen, that a very much greater advance had been made in the science of Political Economy, before Adam Smith, than is generally supposed.

Beccaria, in his very excellent discourse, defines Political Economy and Commerce to be the sciences which point out the means of preserving and increasing the wealth of a State, and making the best use of it, and he rejoices that these are now to be made the subject of public discussion. A mistaken prudence had once tried to keep them secret. Free discussion would dissipate a multitude of prejudice, which opposed the truest wisdom. It is of great public utility that these sciences should be generally cultivated. Nor is it sufficient to know general principles only, but minute details. Every Economical action resolves itself into procuring the greatest amount of labor, and services, from the members

of a nation, and in this alone consists the true and original riches, much more than in the quantity of the precious metals, signs only which run to the calls of industry and labor, and which fly from ignorance and indolence, notwithstanding every obstacle.

Beccaria saw that the fundamental conception of Political Economy was *exchange*. "In ogni tempo vi è stato cambio di cose con cose reciprocamente superflue e necessarie, di azioni con cose, di azioni con azioni."—"In every age there has been an exchange of products for products, reciprocally superfluous and necessary, of services for products, and of services for services." This description includes the widest description of property which has been said to be properly included in Political Economy. Beccaria also says that it was necessary to have a multitude of ages, and of minute facts, and experiments upon which to rear the science. He says, that the first seeds of Economic Science in modern times are to be found in Bacon.

In his lectures Beccaria defines Political Economy as above, and defines wealth to be all things useful and agreeable. Everything which serves for food, lodging, and clothing mankind, comes from the earth,—either vegetables, minerals, or animals. The means of making the best use of this he calls Political Agriculture, and forms the first object of Political Economy. These raw materials, however, require to be modified by human labor, to make them fit for human use. This process is called manufacture, and is the second object of Political Economy. As men have usually an abundance of some things greater than they require, and are in want of others, they reciprocally exchange them,—and this is called commerce, the third object of Political Economy.

The labor of men, moreover, requires to be protected from foreign violence, and internal injustice. Hence arises the necessity of fleets and armies, and administrators. These must be supported by taxation. The best mode of levying and applying this is called Finance, and is the fourth object of Political Economy.

The fifth and last object of Political Economy he calls Government, under which are included the sciences, education, good order, public security and peace.

This is the broad outline of what Beccaria considers as the domain of Political Economy; and it will be seen that his opinion coincides very much with that of many influential thinkers at the present day.

We shall now present our readers with a short abstract of Beccaria's mode of treating the subject.

He begins by considering the case of a number of families thrown upon an uncultivated land. They might live for a considerable time on the animals of the water, air, and earth, wild fruits, trees and roots; they might clothe themselves with the skins of animals, and dwell in caves. In process of time, after having tamed many of the wild animals, their own observations, and the wants of the rising generation, would lead them to try to increase the natural productions of the earth. But to do this, they must surmount many obstacles, such as clearing the land, &c., which would require time and instruments.

They must have seeds to plant, and during this time they must have food and clothing. The sum, then, of all things which are necessary to make an uncultivated land fruitful, which are the foundations of culture, and without which the land would remain desert, he calls *CAPITAL*.

The land being thus rendered productive, must be kept so; and this can only be done by reserving from the first year's produce sufficient to replant it, and perform the same operations over again. A portion, therefore, of the preceding year's wealth must be appropriated to reproduction, and this he calls *annual provision*.

He then announces very clearly the doctrine of the *division of labour*, which Adam Smith begins with. "From these families spring necessarily the arts, and the different occupations of men. Each one learns by experience by applying the hand and the mind always to the same kind of works and productions, he finds the results more easy, more abundant, and better, than those which each one would make if each one by himself made everything necessary for himself alone; whence some tend the flocks, some card the wool, some weave it. One cultivates the corn, another makes it into bread; another makes clothes; another builds for the husbandmen and workmen; the arts thus increasing and linking themselves together, and men in this manner dividing themselves into various classes and conditions to their public and private advantage."

The labor of men could not exist without something to work upon, nor could that exist unless the earth produced it. The hand of man modifies and disposes of matter, but does not add one atom to it. But in order that man may work, he must have materials and food, and necessities, during the time of his labor; it thence follows, that the value of every production is composed of the value of the raw material and of the wages of the workman.

These wages are either not paid in money, or they are, but it comes to the same thing, because with money everything can be had. Therefore the true wages are the sum of the necessary and agreeable things the laborer can command. Therefore these wages, or these things necessary and agreeable to life, however they may be modified, all come from the earth. Hence the increase of the products of the earth is an increase of wages to be divided, and the destruction of the same products is a destruction of the same wages.

Hence the object of all economic action is to encourage the greatest possible quantity of useful and exchangeable products, and to remove everything which may diminish this greatest possible quantity.

Agriculture and commerce are inseparably united, the agriculture of one state supports the industry of another, and the industry of the latter enriches the agriculture of the former. Nations, therefore, though separate politically, are in reality united by moral and physical laws. Therefore, in order to obtain the greatest amount of useful and exchangeable products, men must labor diligently on the earth, or upon its products, hence *it is the great end and the first principle of Political Economy to elicit in the natives the greatest amount of useful labor, that is, the labor which produces the greatest amount of exchangeable products.*

The ruling principle then of Political Economy is not to call forth the greatest amount of labor solely, but the greatest amount of useful labor. Every work must be done in the least possible time, and at the least possible expence. As all the laborers must be supported out of the fruits of the earth, the more time and expence any work costs, the more products of the earth must be given for it, and less will remain to encourage other arts and other works. Hence a work will be less useful if it be done by a greater number of persons, and in a longer time, than necessary.

The wants of man are always being renewed by time, and life is supported by the destruction and alteration of matter. He must be clothed, and the tailor must be furnished with all the materials, and he must be maintained while he is working, and those who supply him with materials must be maintained in a similar manner, and so on in succession; hence in every piece of work two elements enter into the price, one the raw materials produced by the earth, and the other the subsistence of all the persons who contribute to its modification. This subsistence is in the first place also supplied by the earth, and it is different from it inasmuch as it is consumed, whereas the other is only worked upon, until it reaches its final destination. In every payment therefore, *i.e.*, in every passage of a product from one hand to another, there is always one part of its value which is turned into immediate consumption. Hence, if the value of the raw material be subtracted from any work, the remainder represents the sum of the things consumed, or the subsistence of all the persons who have contributed directly or indirectly to the work. Hence subsistence or consumption may be said to be the universal representative of all sorts of labor; consumption being a more extensive word than subsistence, as many things must be classed with subsistence which are consumed, and yet are not subsistence, as for instance, wood, which is burnt.

(We may here remark that Beccaria's analysis of price is manifestly defective; if, as he says, price were only composed of raw materials and wages, there could be no such thing as accumulation by commerce. In the language of English economists, Beccaria says that price consists of rent and wages, but Adam Smith shews that price consists of rent, wages, and *profits*, out of which last of course all increase of commercial wealth arises.)

In valuing labor, the length of time it endures must be taken into consideration, because subsistence is a constant want. There must also be considered the greater or less quantity of work done, and the greater or less skill it requires, the dangers and risks in working it, either on account of the fragile nature of the material, or any circumstances which make it noxious or hurtful to health. This refers to the value of the labor, because other considerations affect the value of the thing itself, such as its abundance or scarcity, the greater or less demand, transport, and other things which influence relative value. It is moreover impossible to fix with precision the intrinsic value of the labor of man, on account of the enormous multitude of circumstances to be considered.

But it may generally be deduced that arts among nations are generally in proportion to the demand for them, and to increase the arts, it is

necessary to increase the demand for them, and the means to support them.

Beccaria then enters into a long discussion on population, its distribution, and the progress it makes in different forms of society, and the changes of property. Villages will most abound where the land is in the hands of small proprietors. Population will also depend on the employment which the owners of the land give to their wealth, according to the nature of the government, which however is beyond the scope of Political Economy to examine.

It is most important also, to observe that population has certain natural limits, which it cannot exceed. Man is the result of certain necessary natural products, which come from the earth, and the earth can increase its produce to a certain extent, but not indefinitely. Man, moreover, requires the help of animals, and they too derive their nutriment from the earth. Population increases therefore as much as the means of subsistence increase. And these means increase either by the improvement of agriculture, or by the production of exchangeable goods, by which persons in one place can purchase foreign supplies.

Beccaria then investigates the causes which restrain the increase or diminish population, which are physical and moral. The first of these is a bad climate, or an unhealthy situation; the second is epidemics and diseases. The moral causes are more numerous and difficult to remove. The first is ignorance, and want of civilization. (In Ireland this was a cause of increase.) The second moral cause is the different customs of marriages, which are diminished for different reasons, such as the decreasing value of labor, dissolute habits, moral restraint, excessive luxury in the upper classes, which the inferior ones imitate, the immense disproportion of property from the caprice of testators. The third moral cause is celibacy, overabundance of monks, &c. The fourth cause is that luxury, which supports the less useful classes, at the expence of the more useful ones. The fifth cause is emigration, which arises either from want of subsistence or work, from the weight of taxation, or the excessive levies of soldiers, which the best politicians say ought not to exceed $1\frac{1}{2}$ per cent. The sixth and last cause, is the increase of the towns at the expence of the country, and its arts. Beccaria says that the causes of the diminution of population may be reduced to these heads, and enlarges upon them. He then describes the different modes of estimating the number of the population, and discusses their rates of mortality at considerable length. This concludes the first part of his Elements.

The second part treats of the philosophy of agriculture, which he calls political agriculture, that is the means by which agriculture is improved, its influence on public wealth, the proportion between the produce of the earth, and the arts, and professions, and how obstacles to it may be removed. By political agriculture, he means tilling the earth, pasturage, fishing, the chase, and mining. Beccaria then describes minutely the obstacles which hinder the increase of production in agriculture.

He then enters upon the much disputed question of large and small farms, and enlarges upon the advantages which the advocates of large farms

allege in favor of the system, but he does not pronounce an opinion himself.

He then enters at considerable length into the different kinds of the produce of the earth.

In the next chapter he discusses the various modes proposed for regulating the market, and advocates entire free trade in coin, and shews that the free competition of buyers and sellers only is capable of determining the just value of things. He discusses the various regulating duties proposed by different parties, to insure a supply of corn, and guard against famine, public magazines &c., and shews their inutility, and finally concludes in favor of unlimited free trade, both in the growth and sale of corn, and manufacture of bread. The only edict he says, which is warranted by the true principles of Political Economy is "Let any one who pleases make bread, and how he pleases," private interest will do more for the public advantage than the most rigid laws.

Beccaria then treats of the production of wood for fuel, and strongly advocates the improvement of transport, the construction of canals, and to cheapen the price of it, and says, that forests may, perhaps from their peculiar nature, be subjected to certain regulations, notwithstanding the general rule of absolute free-trade; and examines objections to this interference. He then treats of the culture of silk worms, and other objects of agriculture.

The next subject of investigation is the pastoral department of agriculture, including slaves. He then touches very slightly on mining, fishing, and hunting. On the subject of metals he observes that though it is the object of every man to obtain gold, which gives command of all the pleasures of the earth, yet true politicians have always observed that it is much more advantageous to a nation to be under the necessity of acquiring it, than to possess it in themselves. To acquire it involves movement, action, labor, which is the life and soul of the body political, to possess it in the soil, is a soporific drug to all industry. The possession and working of iron is infinitely preferable to that of gold and silver; and every nation which possesses iron, should diligently work it, as an inexhaustible fountain of all the works of man. Fishing and hunting, too, deserve the regard of the Economist.

The third part of the Elements relates to arts and manufactures. The general course of treatment is very much the same as that of agriculture. He enumerates the different sorts, the obstacles to their increase, such as the dearth and scarcity of labor, excessive taxation, and what is somewhat remarkable, he enumerates among them the custom of persons placing their money in public banks which pay interest, which he seems to think withdraws money from trade, the very same objection as had been made in England to the Bank. Another obstacle is monopoly, and exclusive privileges which are given to one, when many others are ready to undertake the same work. An art which remains in the hands of one, or of few, must always be languid and imperfect, and unable to stand against the competition of similar arts in other countries, where they are free, which produces emulation, goodness of quality, and cheapness; hence demand will always go to a free country, and not to one

where severe monopolies exist. These are always unjust and noxious, either in favor of a new trade or an old one. Those who ask for exclusive privileges want either the power to cheat with impunity, or by the power of the law to tyrannize over the buyer. Free competition in manufactures lowers their price, and improves their quality, and increases their market, which, in the long run, does not diminish individual profits.

Beccaria then considers which of the arts it is most advantageous for a country to have, and the best order of their introduction, and decides in favor of the most necessary ones first, and so on gradually to those of luxury. The objects which a well regulated system of manufactures should aim at, are goodness, variety, and cheapness.

The fourth and last division of his lectures treats of commerce, the most extensive department of the subject.

The different and successive wants of men determined and suggested the different operations devised to satisfy them. Ignorant and savage men who only think of the present, and have no regard for the future, content themselves with very little. Thus the arts and productions of a hunting people are very few. Those of a pastoral people are more and more complicated. Still more so are those of an agricultural people, and productive operations being rendered more easy and more certain, gradually superabundance springs up of things beyond what is necessary to satisfy each one's wants. Thus, if one has a superabundance of one thing more than he wants, and requires something of which some one else has a superabundance, they, reciprocally exchange. Every one finds, too, by experience, that it is easier always to make the same thing, rather than different ones, thus he is induced to multiply the quantity of some single production, to have more than he requires of it, which he can then exchange for other things that he wants, these other things being multiplied with the very same view. Thus commerce is born, and a new era opens up for the refinement and perfection of the human race. And as at first nothing was esteemed except in proportion as it was useful to satisfy the exigencies and comforts of life, from which came the idea and the name of VALUE, that is, it was something which had the power to answer some end, *thus in this last state things began to be esteemed according as they could procure other things.* HENCE ABSOLUTE VALUE BECAME IN CONSEQUENCE RELATIVE, AND EXCHANGEABLE, AND CAME TO SIGNIFY THE POWER WHICH ANY OBJECT HAS TO BE EXCHANGED FOR ALL OTHER THINGS, *and the quantity of anything which must be given for any other, determined, and is called the price of that other.* Hence the first object of this part is the theory of value, and the price of things. From this it came that for certain indispensable and general reasons, that species of merchandize which is most easily exchangeable became the common measure and standard of comparison of all other things, and measures the value of all things. And this common measure is called money. Hence the second object is the theory of money. Competition is the third object. And as commodities, and chiefly money, the universal merchandize and

standard of value, pass from hand to hand, which is called circulation, giving rise to many complicated phenomena, the investigation of these is the fourth object. International trade is the fifth object. From these complicated transactions springs inequality of riches, the sixth object. The seventh object comprises loans and the interest of money. The eighth object is the Foreign Exchanges. The ninth object is the system of banking, and the public funds. The tenth object is public credit, which springs from the last. The eleventh comprises commercial regulations. The last relates to speculation.

Beccaria then enters upon the theory of value and prices. All economic entities, he says, may be called values, which are more or less esteemed, and they are esteemed in the first place according to their capacity to satisfy some human wants; and, secondly, according to their rarity and difficulty of attainment. That is, in modern language, according to the intensity of the demand and the limitation of the supply. Air and water, which are universally diffused, though necessary, have no value, nor has anything, however scarce it is, which is not wanted. But this utility and scarcity are relative, not absolute, for many things have ceased to be useful, because others more useful have been substituted for them, or less expensive. The value of other things, on the contrary, sometimes increases, because new uses are discovered for them.

Beccaria then enters into a minute analysis of the values of different articles,—the word value being invariably used to denote the relative quantities in which objects will exchange, and the causes of the changes of value. He shews that the value will always tend to rise with an increase of demand, and to diminish with the increase of supply, but that there is a fixed point to which the value of things tends to approach, and that point to which the exchangeable value of things gravitates is the labor, or the time necessary to produce them. "Hence," he says, "the value of anything upon which labor is bestowed will increase in proportion to the time necessary to work at it, and if a greater number of persons are employed at the same time on this work, it will also increase in proportion to the number of persons employed on the said work. And to express the said proportions in one sentence, it is sufficient to say that the measure of this value of time and persons will be the subsistence which the said persons consume in the said time." It is natural that every one should estimate the value of his own work by its duration, and that this duration should be valued by the things which the workmen consume.

Thus it will be seen that Beccaria entirely anticipated the doctrine of Adam Smith, and Ricardo, when the one said that the value of things was measured by labor, and the other by cost of production. But he skillfully avoided the errors to which the doctrines of these eminent writers lead; for he shews that though this is the tendency of prices under equal circumstances of production, yet if any could produce cheaper than the rest, these would gain the benefit of the reduced cost of production, until increased competition reduced the price. Being the very doctrine we have maintained in our *Elements*, that no change in cost of production can cause a change of value,

without a change in demand and supply. When there is competition (and Beccaria should have added, an unlimited supply) the price will be fixed by him who can produce cheapest. He then shews that an alleged distinction between extrinsic and intrinsic value was unfounded.

Beccaria then investigates the nature of money, as the merchandize which is always exchangeable, and for that reason is used as a common measure of value. From this definition, there are two principal uses of money, one to be the representative sign of a determinate quantity of everything else, and the other to be a pledge, and a security that the owner can obtain these determinate quantities. In this place, although he has made use of the expression *representative sign*, the same which beguiled John Law, and was the fundamental error of his system, and which Turgot and the early French economists were at so much pains to refute; yet it is perfectly plain that Beccaria's error is only in expression, and not in conception. He fully understood that money is an independent and separate merchandize; and he also saw that its nature is analogous to that of a bill of exchange, namely, a security for a future exchange, which Aristotle saw.

Beccaria then investigates the origin of money, and the reason why gold, silver, and copper came generally to be used as money. These metals enter into commerce exactly in the same way that everything else does, and their value depends, exactly in a similar manner, on supply and demand.

Gold and silver became money because they were merchandize of universal exchangeability. Various circumstances then pointed out the advantage of having them divided by public authority into pieces of equal weight and fineness. Hence coining by public authority, but this coining was only a sign which certified the weight and the fineness of the money.

Beccaria then shows how both silver and gold became money, and were used as measures of each other. He says that, if they were both simultaneously placed in the market, they ought to exchange in the inverse proportions of these quantities, *if the demand for one was not stronger than the demand for the other*. This, however, is the case, and illustrates a principle of very wide application in Political Economy, for whereas the quantity of silver is about 40 to 1 compared to that of gold, its value is about 1 to 15 to gold.

He then enters into the considerations affecting the circulation of gold and silver as money simultaneously, and shews that if they are not valued in the coins according to their market value, the metal which is undervalued will be exported, as has been abundantly verified in numerous countries. He also enters most minutely into the effects of a disordered state of the currency, of which he had a flagrant example in the state of Milan. The phenomena of circulation are then minutely analysed.

Up to the present time only the exchange of material products has been considered, but commerce is a very extensive word, and includes the successive series of exchanges, of all economic services. The definition of commerce as the exchange of the superfluous for the necessary is scarcely exact, and a better definition is the ex-

change of things which are less useful for those that are more useful, the word useful being employed in its primary and general sense, as everything which ministers to our necessities, or wants, or pleasures, physical or moral.

Commerce is usually divided into internal and external. Internal commerce is that made within the boundaries of a state; external, the exchange of anything whatever which is produced, or manufactured, or at least represents any value or any service done by the members of one state with those of another. This distinction, however, only regards the political limits of a state, and immediately affects the sovereign. He then discusses home and foreign trade, in which however we do not think he has been successful, as he thinks that the profit of one man is made at the expense of another.

He points out that an increase of the currency may be hurtful to a nation, as it may drive purchasers away from an increase of price.

The balance of trade, which many people make so much of, is impossible to be ascertained, but there are four signs which, if they happen concurrently, prove that a nation is advancing in wealth. 1. Increase of population. 2. The prosperity and extension of agriculture. 3. The decrease in the rate of interest. 4. A rise in the prices of things in general. These, if they happen altogether, infallibly prove that a nation is advancing in wealth.

Beccaria then discusses the nature of interest. He defines interest as the utility which any person receives from the use of anything, whilst the property of it remains with its owner. Everything may produce such an utility, hence everything may have its appropriate and natural interest. Thus, the interest of the earth, the original function of all wealth, is its constant and periodical reproduction; the interest of labor is the wages paid for it, the interest of personal services, studies, &c., are the fees paid for them, the interest of the manufacturers consists in the gain, they make, deducting the cost of production. The interest of all industry is the profit such industry produces, so long as the workman has the right to employ it. The value of all these things, land, labor, services, manufactures, commerce, is measured by money; consequently, the interest of money is the utility which may arise from this money, as representing each of these values. But he has said that subsistence is the common measure of all these values, and their universal representative. Subsistence is the utility which measures all other utilities, and this utility comes from the earth, hence every sum of money represents some portion of the earth, and the interest of this money represents the annual fruit of the earth. He then details the various kinds of hiring or letting. Hence he says, that the products of the earth are the true measure of the interest of money, and the interest of land compared to the interest of money, is a true rule by which to judge of the prosperity of States. In the course of his following remarks, he seems to have a dim perception of some things which were afterwards propounded in Ricardo's theory of rent.

The subject of the Foreign Exchanges is then very well and ably explained, indeed we do not know of any place where it is done with greater clearness, terseness, and simplicity.

Beccaria then concludes by a short account of public banks, money of account, and credit. This is not so full and satisfactory as might be desired, but he fully bears out the meaning which we have shown to be the fundamental one of BANK under that article. He shows how the public banks arose out of the requirements of governments for money, which they could not raise by direct taxation. Individuals contributed their wealth to one common stock, and received an interest for it. Hence from this origin and definition of public banks, *it follows that the heaping together of wealth is the essential point that forms and characterizes a bank.* But each of the owners of this wealth still retains his right to demand it back again, and consequently he must have an acknowledgment of the bank, which assures to him the property of the value confided to it, and the conditions agreed upon. This assurance is done by registering in a book the names of the depositors, the quality of the deposit, and the conditions upon which it is left, and giving to the owner, a note, or bill, which gives him the right to demand back, or exchange, the sum specified on the face of it. By this means, this note becomes a measure and a pledge of value, just like true and real money. If the owner of money could no longer acquire what he wanted with it, money would be a useless and superfluous thing, thus if a man was rolling in money, if it was not exchangeable for anything else, he would be poor in reality. So also if the owners of these bank notes could not realize their value, they would be no better than paper covered with ink. Their value then consists in the confidence that they can be realized. Consequently a bank should not give out more notes than it has actual wealth to represent them. John Law's system is a fatal example of violating this principle. Beccaria, however, like many other writers, in condemning Law, has not really understood Law's system, and has himself proposed the very same thing.

A very short notice on public credit then finishes the Elements. Beccaria, thus, it will be seen, only investigates three out of the five departments of Political Economy which he had enumerated, and leaves those of finances and government wholly untouched.

Della riduzione delle misure di lunghezza all'uniformità per lo stato di Milano. Relazione presentata al magistrato camerale, il xv Gennajo, MDCCLXXX.

A report to the Board upon the diversity of measures in the State of Milan, in which he recommends their reduction to uniformity, and the establishment of the decimal system, which was afterwards adopted in France, and many other countries.

When we consider that the lectures of which we have given an analysis above, were delivered in 1769, or seven years before the *Wealth of Nations* was published, as well as the writings of other Italians (GENOVESI; VERRI), which were published even earlier, we shall, we think, come to the conclusion that Political Economy had made much greater advances before the days of Adam Smith than is commonly believed. It is by no means uncommon to see it stated that Adam Smith was the founder of Political Economy and the father of Free Trade. But such opinions only proceed from inaccurate historical

knowledge. The fact is, that, as in the early stages of every other science, England was far in arrear of France and Italy. Then, no doubt, by the publication of the *Wealth of Nations*, at one bound she took the lead, and in actual practice, she has since far outstripped every other nation. But there was a much greater number of earnest advocates for free trade, both in France and Italy, before the *Wealth of Nations* was published, than in England. And there were three professorships of Political Economy founded before 1776. One at Naples in 1754, one at Stockholm, and one at Milan in 1768. To suppose, therefore, that Adam Smith was either the father of Free Trade or of Political Economy is a most profound error. We see that Italy is entitled to a very high rank indeed in the science of Political Economy. But Beccaria's name has been comparatively little known in connection with it, and this arose from his constitutional failing. Beccaria was endowed with a great, a piercing, and a generous mind, but it was vastly less beneficial to the human race than it might have been, because it was overshadowed by a most pusillanimous soul. He was not one of those magnanimous spirits for whom the highest order in the ranks of fame is reserved, who will courageously do battle for what they know to be truth, in despite of the opposition of the vulgar of every rank. He was not one of those of whom the poet sings—

"Nè biammo popolar, frale catena,
Spirto d'onore in suo cammin raffrena."

"Nor can the vulgar cry, a feeble chain,
The noble spirit in its course restrain."

His cowardice of spirit greatly lost him the esteem of Verri. Finding the sentiments expressed in his lectures likely to create opposition, he stopped, and left them unfinished, and he never published them. They first saw the light in 1804, in Custodi's collection of the Italian Economists. And thus he has deservedly missed the fame which would otherwise have been his legitimate due.

BECHARD, FERDINAND.

La commune, l'Eglise, et l'Etat, dans leurs rapports avec les classes laborieuses. Paris, 1849.

De l'Administration intérieure de la France. Paris, 1851.

De l'état du paupérisme en France, et des moyens d'y remédier. Paris, 1853.

BECKER, JOHN THOMAS.

The anti-pauper system. London, 1834.

The constitution of Friendly Societies. London, 1824.

BECKER, SIEGFRIED.

Die ergebnisse des Handels und Zolleinkommens der Oesterreichischen Monarchie im Jahre, 1842. Leipzig, 1845.

Das Oesterreichische Münzwesen vom Jahre, 1524 bis 1838. Wien, 1838.

Statistische Uebersicht der Bevölkerung der Oesterreichischen Monarchie nach den Ergebnissen der Jahre 1834 bis 1840. Stuttgart and Tübingen, 1841.

Die Volkswirtschaft. Wien, 1853.

BECQUEREL.

Recherches sur la Statistique des Céréales, pendant la période de 1815 à 1852. Paris, 1854.

BEDARRIDE, J.

Traité des faillites et banqueroutes. Paris, 1844.
Droit commercial; commentaire du code de commerce. Paris, 1857.

BEEKE, HENRY.

Observations on the produce of the Income Tax. London, 1800.

BEESELEY, GEORGE.

A Report on the State of Agriculture in Lancashire, with observations on the political position and general prospects of the agricultural classes, and a Tabular Statement of the prices of corn and wages of husbandry, &c., at various periods since the Norman Conquest. Preston, 1849.

BEEVER, SUSANNAH.

A pocket plea for ragged and industrial schools. Edinburgh, 1852.

BEGG, JAMES, D.D.

Pauperism and the Poor Laws, or our sinking population and rapidly increasing burdens practically considered. Edinburgh, 1849.

BEGOVEN, JACQUES FRANÇAIS, COUNT.

Discours sur le commerce de l'Inde. Paris, 1789.
Opinion sur le tarif et le prohibition des marchandises étrangères. Paris, 1790.

BEGUILLET, EDMÉ.

Traité des subsistances et des grains qui servent à la nourriture de l'homme. Paris, 1780.

BEHR, G. J. Born at Sulzheim in 1773, Professor of public right in the University of Wurzburg, has published several works, which have a high reputation. Those relating to Political Economy are—

Systeme der Staatslehre, 1810.

Lehre von den Wirthschaft des Staats, 1822.

BELL, BENJAMIN, Surgeon to the Royal Infirmary at Edinburgh, died 1820.

Essays on Agriculture. Edinburgh, 1802.

On Scarcity. Edinburgh, 1804.

BELL, G. M.

The Currency Question, an examination of the evidence on banks of issue, 1840. London, 1841.

The Country Banks and the Currency. London, 1842.

A guide to the investment of Capital. London, 1845.

The Philosophy of Joint Stock Banking. 2nd Edit. London, 1855.

An able little treatise.

BELL, WILLIAM, D.D.

A vindication of commerce and the arts. London, 1758.

BELLERS, JOHN.

Proposals for raising a College of Industry. London, 1696.

Essays about the poor, manufactures, trade, plantations, &c. London, 1699.

An essay for employing the poor to profit. London, 1723.

BELLINI, VINCENZO.

Delle Monete di Ferrara Trattato. Ferrara, 1761.

De Monetis Italiae medii ævi. Ferrara, 1774.

BELLONI, GEROLAMO, MARCHESE.

A Roman banker of great eminence, who wrote a short treatise upon commerce in 1750, which was rewarded with extraordinary honors. The Pope, Benedict XIV., made him a Marquis, and his treatise was translated into several languages. It is included in Custodi's collection.

Dissertazione sopra il commercio. Roma, 1750.

BELTJENS, MATTHIAS EGIDIUS HUBERTUS.

Specimen inaugurale æconomico-politicum de Libertate industriae. Leodii, 1829.

BENARD, Th. N.

Les lois économiques. Paris, 1856.

BENAWEN, JEAN MICHEL.

Italien; ou l'art de connoître toutes les monnoies actuelles d'Italie, &c., &c., avec le détail des productions d'Italie. Lyon, 1787.

BENBRIGGE, JOHN.

Usura accommodata, or a ready way to rectify usury. London, 1646.

This little tract contains abundant evidence of the truth of what we have shewn (**BANK**) that the word Bank is the equivalent of *Monte*, or *Mons*. Thus at page 3, he says, "for their rescue may be collected *Mons Pietatis, sive Charitatis*, a *BANKE of Piety, or Charity*, as they of Trent fitly call it." Again, "For borrowers in Trade for their supply, as their occasions shall require, may be erected *Mons Negotiationis*, a *BANKE of Trade*." At page 4, he quotes from Tolet, who speaks of two kinds of Banks, namely, "*Mons Fidei*, a *BANKE of Trust*, which Clement VII. instituted at Rome, he that put his money into this *Banke* was never to take it out again," for which the investor received 7 per cent. interest, like the original Bank of England Stock. He also speaks of a *Mons Recuperationis*, or *BANKE of Recovery*, of which the interest was 12 per cent. The difference between these two was that between perpetual and terminable annuities, where the higher interest of the latter is, in fact, repayment of the capital by instalments. He also speaks of the "*three BANKS at Venice*," meaning thereby the three *monti*, which, as we have shewn (**BANKING AT VENICE**), were consolidated into one management in 1587, and the Commissioners appointed to manage the *BANK* of Venice, then first instituted.

BENCE, H. B.

Report of a mission from the Blything Union to ascertain the probable employment of the agricultural laborer, and his family, in the manufacturing districts. Halesworth, 1836.

BENE, BENEDETTO DEL.

Opere di Agricoltura. Milano, 1850.

BENETT, JOHN.

An essay on the commutation of tithes. London, 1813.

BENNER, J.

Théorie mathématique de l'économie sociale ; ou, éléments nouveaux d'économie politique. Genève, 1856.

BENNETT, JOHN, M.P. for Wilts.

On the relative importance of agriculture and foreign trade. London, 1827.

BENOISTON DE CHATEAUNEUF, LOUIS FRANÇAIS. Born at Paris in 1776, Member of the Institute.

Recherches sur les consommations de tout genre de la ville de Paris en 1817, comparées à ce qu'elles étaient en 1789. Paris, 1821.

Consommation, industrie. Paris, 1821.

Considérations sur les enfans trouvés dans les principaux états de l'Europe. Paris, 1824.

De la colonisation des condamnés, et de l'avantage qu'il y aurait pour la France à adopter ce système. Paris, 1827.

BENTHAM, JEREMY. This preeminent jurist, the great original fountain from whence those beneficent reforms in the law, which are among the most glorious achievements of this age, have sprung, was born on the 15th of February, 1748, in Red Lion Street, Houndsditch. He was the son of an attorney in moderate practice. Though extremely diminutive and feeble in body, he very early displayed signs of great precocity, and his relatives did the utmost they could to spoil him by shewing him off as a youthful prodigy. In 1754, in his seventh year, he was sent to Westminster School, and his Latin verses at eight shew a most remarkable proficiency, at an age when most boys at a public school would be scarcely getting into "nonsense." He was distinguished there for his Latin and Greek composition, but upon the whole he had no great respect for the discipline and method of education then followed at that celebrated seminary.

On the 27th June, 1760, being then only 12½, he was taken up to Oxford to be entered at Queen's College, and at that time he was excused from signing the Thirty-nine Articles on account of his youth. He went up to reside there in the following October. He was so diminutive for his age, as to excite the smiles of the passers by. His residence at Oxford was equally distasteful to him as Westminster had been. His opinion of it was as low as that of Adam Smith, and he spoke against it to the end of his life. In 1763, being then fifteen, he took his B.A. degree, and came to London to enter himself at Lincoln's Inn. In November he returned to Oxford to attend the lectures of Blackstone, but he did not entertain any very high opinion of them, and easily saw through his flimsy fallacies.

His father destined him for the Equity bar, but he had already devoted himself to more discursive studies than are supposed to be agreeable

to so jealous a mistress as Themis. Plenty of work was cut out for the young barrister, but finding one day that it was the rule of the profession to charge fictitious fees in some cases, he took such a disgust to it, that nothing could persuade him to continue in it. He accordingly gave up all idea of practising, and began to speculate on political and juridical subjects, and to collect and compare the opinions of the most eminent writers on them.

His first appearance in print was some letters in defence of Lord Mansfield, in 1770. In 1776, he published anonymously his "Fragment on Governments," being a severe criticism on the doctrines of Blackstone. It made a considerable sensation, and was attributed to several of the most eminent men of the day, such as Lord Mansfield, Lord Camden, and John Dunning. While it was believed to be by one of these celebrated men it had a brisk sale, but his father was so elated with its success that he let out the secret, and as soon as it was known to be by an obscure briefless barrister, the sale fell off. Bentham had prepared a second and much stronger attack on Blackstone, but it was suppressed from fear of a prosecution for libel. The bold audacity of his attacks on established formalism drew down many anathemas on the author, and every violent and ribaldrous pamphlet that appeared was laid to his door.

His "Fragment on Governments" procured him the friendship and patronage of Lord Shelburne, the leader of the Whigs. For many years he was a regular visitor at Bowood, and met there most of the celebrated men of the day. He also corresponded with many of the French philosophers.

In 1785 he was invited to Russia by Prince Potemkin, in whose service his brother, then Colonel, afterwards General Sir Samuel Bentham, then was. Potemkin wished to transplant British civilisation, ready grown, to the South of Russia, and had formed a great establishment at Crichoff. Bentham set himself to collect materials of agricultural, trading, and manufacturing subjects, and left England in August, 1785. He travelled through France, visiting the beautiful Roman antiquities at Nîmes, and the towns in the south, and joined a vessel bound for Smyrna at Nice. He staid nearly a month at Smyrna, and was the first to send home specimens of the Sultana raisin. He then continued his voyage to Constantinople, and from there by land to Crichoff, where he arrived in February, 1787. While staying there he wrote his celebrated *Defence of Usury*, and saw the model of a building devised by his brother for a vast workshop, which he adopted for his Panopticon, a scheme which occupied about twenty years of his life. Bentham had a great taste for botany, and collected a considerable number of the plants of that part of Russia, but he naturally became wearied with the monotony of Crichoff, and in November, 1787, he left it, and returned home by way of Warsaw, Berlin, and the Hague.

His *Defence of Usury* was sent home from Crichoff, and published, and it added greatly to his reputation. He had a great desire to enter Parliament, and from some expressions which fell from Lord Shelburne, he understood that he would put him in for his nomination borough of Calne. But it is probable that Bentham had mis-

conceived the language of his patron. At all events the services of some obscure political lacquey were deemed more important than those of the greatest social philosopher of the age, and Bentham's wishes were disappointed. He felt this very keenly, and it gave rise to a slight temporary coolness between him and his patron.

The miserable administration of the criminal and poor laws engaged Bentham's profound attention for many years. At length he matured a complete scheme of reform. He proposed to unite the management of both in one central board, the criminals to be confined in a building constructed on peculiar principles, so that every part of it should be in the constant view of the superintendent, whence it was called Panopticon. The scheme was taken up with the utmost warmth by Pitt, and all the leading statesmen of the day, and a bill was passed through both Houses of Parliament to carry it out. But Bentham had given offence to George III., and when the bill came up for the Royal assent, the king vetoed it. The last instance probably in our history of the sovereign vetoing a bill, and all the more undignified, as it was done out of pure personal pique. Thus the memory of that monarch stands heavily charged not only with delaying Catholic Emancipation for some 28 years, and thereby bringing the country to the verge of rebellion, but also with delaying the reform of the Poor law for 36 years, at a cost probably of not less than £2,000,000 a year, a tolerably heavy item to place to the debit of his account. Parliament voted Bentham a large compensation for his loss of time and labor, and expenses incurred. In 1831 he published a *History of the War between Jeremy Bentham and George III., by one of the Belligerents*.

The next noticeable event in Bentham's life was his becoming a partner with Robert Owen in the New Lanark mills, situated in the beautiful valley of the Clyde, a little way below the falls of Cora Linn. This establishment was instituted to carry out the Socialist doctrines of its author, and was the first experiment of infant school education, and the abolition of all coercive discipline. The connection is said to have been highly profitable to Bentham.

For some time Bentham had devoted himself exclusively to his meditations on jurisprudence, and social improvement. He took no part in public affairs, but lived like a hermit in his house in Queen Square Place, and received the visits only of a select number of private friends, like his brother oracle Coleridge. These included almost all those who have since been distinguished as leaders of thought among men. But with none of these was his intimacy so great as with James Mill, the famous historian of India, who lived with him for six months every year from 1808 to 1817.

Bentham's fame was much greater on the Continent than in England. His works had been popularized by an excellent French writer, Dumont, who fitted them for the public taste, by expounding them in a familiar style with copious illustrations. In 1825, being troubled with a species of eczema, Bentham was recommended to go to Paris, and consult a French physician. Upon going to the Court of justice, the barristers rose up in a body, and the president seated him at his right hand. He soon after returned to

London, and continued the same peaceful life till the 6th June, 1832, when his spirit passed away with the tranquillity which fitly closed such a life.

It is not, of course, for us to speak here of the gigantic reforms in jurisprudence, which are beyond all question his doing, and that of his immediate disciples. His works have encountered a strange fate, as Mr. John Hill Burton remarks. In his own day they were not read because they were paradoxes, in our day they are not read because they are truisms.

In practical Political Economy his services were immense. He first overthrew the universal folly of the doctrine of the wickedness of interest. He first showed the fallacy of the universal craze for colonies which, in his day, infected all countries, and all statesmen. The recent example of the emancipation of America was an irrefutable example of the truth of his views, which are founded upon the same line of argument as Bastiat's *ce qu'on voit et ce qu'on ne voit pas* (BASTIAT). He also was the first to conceive that immense reform of the Poor Laws, which was only effected in 1834, and which he would have carried out in 1798, if he had not been thwarted by the personal malignity of George III. These achievements are sufficient to entitle him to lasting fame.

But in the theoretical, or more purely scientific part of the subject, he is not entitled to equal praise. Indeed, he was notoriously deficient in the auxiliary sciences which are indispensable to understand it thoroughly. He could not raise himself above the views of Adam Smith, who limited Political Economy to *material* wealth, an error which we have shewn (PRELIMINARY DISCOURSE; CAPITAL; CREDIT) is exactly similar to that of those who, in the days of Galileo, could not believe in the existence of gravity, because it was an incorporeal force; or to those who, in our own day, would deny the existence of the gaseous elements in chemistry, because they are invisible.

Bentham's works were published in 12 volumes, Edinburgh, 1838-43, under the superintendence of Sir John Bowring, one of his literary executors, with the assistance of Mr. John Hill Burton, the historian, who has prefixed an ample but concise introduction to them. For an appreciation of his merits and services, we may refer to Mr. John Stuart Mill's article on him in his *Dissertations and Discussions*.

Defence of Usury; shewing the impolicy of legal restraints in pecuniary bargains. Works, Vol. III., p. 1.

This was the most elaborate treatise which had been given to the world to shew the futility of the prevailing belief in the wrongful nature of usury. Adam Smith had been one of the first to enlighten the world upon the beneficial effect of high prices, and to dissipate the popular fallacy, that they were caused by the wicked conspiracies of farmers and corn-factors. Adam Smith had, however, argued in favor of maintaining the usury laws. Bentham argued in favor of leaving the rate of interest entirely free. This was only accomplished in 1854, when the last remnant of our usury laws was struck out of our statutes. Like all treatises which merely overthrew a current fallacy, it may be considered as somewhat having lost its interest along with its victory.

But all those who love a beautiful piece of argumentation for its own sake, will find pleasure in this treatise.

It is somewhat remarkable, however, that both Adam Smith and Bentham missed the obvious analogy between the variations of prices with respect to commodities, and the variations of the rate of discount with respect to credit, or paper currency.

Manual of Political Economy. Works, Vol. III. A great part of this treatise has lost its interest, as it is devoted to prove the fallacy of the mischievous system of drawbacks and bounties, which were then so generally adopted. He also shews the utter fallacy of the universal belief in the profitable nature of colonies to the mother country. His line of argument is exactly that of Bastiat in his essay, *Ce qu'on voit, et ce qu'on ne voit pas*, in the *Sophismes Economiques*. He shews that for the gain which is apparent, there is to be set off a much greater expense which escapes observation.

Emancipate your colonies; addressed to the National Convention of France in 1793; shewing the uselessness and mischievousness of distant dependencies to an European State. Works, Vol. IV., p. 407.

This, of course, addresses the just-mentioned arguments to the French Convention.

A plan for saving all trouble and expense in the transfer of stock, and for enabling the proprietors to receive their dividends without powers of attorney, or attendance at the Bank of England, by the conversion of stock into note annuities; written in 1800. Works, Vol. III., p. 107.

Bentham proposed to increase the negotiability and convenience of public stock by substituting transferable note annuities (with the interest stated on them) for inscription in the books of the Bank. He hoped that these notes being made small might obtain the same currency as bank notes. It is possible that some convenience might be derived from this plan, though there might perhaps be countervailing disadvantages in the greater facility for forgery. But at all events, Bentham's plan was only to make the existing debt more transferable; he did not propose the monstrous absurdity which is so popular at the present day, of first creating a national debt, and then over and above that, basing bank notes upon its security.

Tracts on Poor Laws and pauper management. Works, Vol. VIII., p. 360.

Observations on the Poor Bill introduced by the Right Hon. W. Pitt. Vol VIII., p. 440.

These are the precursors of the Poor Law Amendment Act.

BENVENUTI, BARTOLOMEO. Advocate.
Imposta diretta ed unica sulla rendita.
Sulle Banche di circolazione.

BENVENUTI, F. F.
Ateliers philanthropiques. Paris, 1853.

BENZENBERG, G. F. Born in 1777.
Ueber Handel und Gewerbe Steuern und Zölle. Elberfeld, 1819.
Preussens Geldhanstalt und neues Steuersystem. Leipsig, 1821.

BERARD, ARISTIDE.

Organisation du travail. Paris, 1848.

BERES, EMILE. Born at Castelnau d'Auzan, in 1801.

Manuel de l'emprunteur et du prêteur, aussi caisses du crédit foncier. Paris, 1853.

Essai sur les moyens d'accroître la richesse territoriale en France, et notamment dans les départements méridionaux. Paris, 1830.

Des causes du malaise industriel et commercial de la France, et moyen d'y remédier. Paris, 1832.

Des classes ouvrières. Moyens d'améliorer leur sort, sous le rapport du bien être matériel, et du perfectionnement moral. Paris, 1836.

L'association des douanes Allemandes, son passé, son avenir. Paris, 1842.

Compte rendu de l'exposition industrielle et agricole de la France en 1849.

Etudes économiques pratiques. Paris, 1849.

BERGASSE, NICOLAS. A person of very considerable importance in his day, was born at Lyons, in 1750. His family was of Spanish origin, and engaged in commerce at Marseilles and Lyons. Nicolas, however, adopted the law as a profession, and in 1772 was appointed by the magistrates to pronounce a public oration on St. Thomas's Day, an annual custom at Lyons, and again in 1774. He was an admirer of Mesmer's, but that did not prevent him from being a good economist. He acquired great public notoriety by being engaged in some celebrated trials just before the revolution. He earnestly opposed the creation of assignats, and had a strong dislike to banks, and paper money of all sorts. His writings, and his strong opposition to the assignats, drew much hostility upon him, and he became a mark for multitudes of pamphleteers. He was a strong advocate for preserving the constitutional monarchy, and after the execution of Louis XVI. found it time to leave Paris to save his own life. He tried to fly to Spain, but he found the passage of the Pyrenees guarded, and he then went to Tarbes, hoping to escape notice. But he was seized in July, 1794, and taken to Paris. Bergasse saw that to save his life was a match against time, and retarded his journey as much as possible on the plea of illness. By protracting his journey in this way, he just succeeded in saving his life, as the revolution of Thermidor took place just before he reached Paris. He was kept in prison on suspicion of being a royalist, till the peace. He continued his denunciations with great boldness, and was the means of bringing several of the followers of Robespierre to execution. He was released by the Directory, and remained quiet during the empire. At the restoration he was much taken notice of by the allied sovereigns, and was always held in the highest esteem by them. Though attached to the Bourbons, he was opposed to the arbitrary measures of the ministers which brought about the revolution of 1830. That event lost him a pension. He died 28th May, 1832.

Discours sur cette question: Quelles sont les causes générales des progrès de l'industrie et du commerce, et quelle a été leur influence sur l'esprit et les mœurs des nations? Lyon, 1774,
De la liberté du commerce. Paris, 1789.

Recherches sur le commerce, les banques, et les finances. Paris, 1789.

Protestation contre les assignats-monnaie. Paris, 1790.

Lettre à ses commettants au sujet de sa protestation, accompanied with tables on the law of assignats.

Reponse au mémoire de M. de Montesquieu sur les assignats. Paris, 1791.

BERGIER, NICOLAS. A celebrated French jurist, born at Rheims on the 1st of March, 1567, and educated there. He was appointed Professor of Law, and Syndic of the town. He died at the house of the President de Bellièvre at Grignon, 18th August, 1623.

Histoire des grands chemins de l'Empire romain, 1622. Second edition, Brussels, 1728, with the celebrated Pentinger table. Blanqui says that this is the most complete account of the Roman communications, and abounds with valuable information for the economist.

BERGIUS, CARL JULIUS.

Das Geld-und Bankwesen im Preussen. Breslaw, 1846.

BERGMAN, CARL F.

Oeconomisk beskriifning öfver Wadsho Hürad, uti Wester göthland, och Maraborgo Hofdingedöme. Upsala, 1759.

BERGSOE, ADOLPH FREDERICK.

Den Danske Stats Statistik. Kiøbenhavn, 1844.
Motiveret Udkast til en Creditforening for Danske Grundbesiddere. Kiøbenhavn, 1839.

BERMINGHAM, THOMAS.

Letter addressed to Lord John Russell, containing facts illustrative of the good effects from the just and considerate discharge of the duties of a resident landlord in Ireland. London, 1846.

A letter on the Corn Laws. London, 1841.

The social state of Great Britain and Ireland considered with regard to the laboring population. London, 1835.

Statistical evidence in favor of State railways in Ireland. Dublin, 1841.

BERNARD, SIR FRANCIS.

Select letters on the trade and government of America. London, 1774.

BERNARD, THEO. NAP.

Lettre à M. Le Ministre de l'agriculture et du commerce sur le nouvelle acte de navigation anglais et les traités de réciprocité. Paris, 1849.

BERNARD, SIR THOMAS.

An account of the supply of fish for the manufacturing poor. London, 1813.

On the supply of employment and subsistence for the labouring classes in fisheries, manufactures, and the cultivation of waste lands. London, 1813.

Case of the salt duties. London, 1817.

BERNARDINO DA FELTRE, TOMI-TANO.

Pro monte pietatis concilia sacrorum Theologorum. Venezia, 1496.

BERNIGAUD DE GRANGE, JEAN LOUIS.

De l'état des finances au 1st May, 1789, et au 1 Janvier, 1792. Paris, 1801.

BERNOULLI CHRISTOPHER. A member of the famous mathematical family, was born at Basle in 1782. He has published several works on technology.

Betrachtungen über die Baumwollen fabrication. Basle, 1825.

Handbuch der Populationistik. Ulm, 1840.

Neue ergebnisse der Bevolkerungstatistik. Ulm, 1841.

BERRYER, P. N. A celebrated advocate.

Dissertation générale sur le commerce, son état actuel en France, et sa législation. Paris, 1829.

BERTHE-POMMERY. Aîné.

Petit écrit sur une grande question: l'amélioration du sort de la classe ouvrière. Paris, 1849.

BERTOLACCI, ANTHONY.

A view of the agricultural, commercial, and financial interests of Ceylon. London, 1817.

BERTON, CHARLES.

Socialisme et Charité. Paris, 1855.

BESNARD.

Mémoire sur les améliorations principales à apporter au sort des masses. Paris, 1848.

BESOLDUS, CHRISTOFERUS.

Ærario publico discursus; subnexus eidem est J. C. Bulengeri de tributis ac vectigalibus populi Romani liber. Frankfort, 1620.

BETHUNE, MAXIMILIEN DE, see SULLY.

BETTANGE, DE.

Traité des monnaies. Avignon, 1760.

BEUCHAT, A. J. QUENTIN.

Réflexions sur les lois concernant la propriété littéraire. Paris, 1817.

BEUGNAT, ARTHUR AUGUSTE. Count. Member of the Institute. Born at Bar-sur-Aube, 25th March, 1797.

Les Juifs d'occident; ou recherches sur l'état civil, le commerce, et la littérature, des Juifs en France, en Espagne, et en Italie pendant la durée du moyen âge. Paris, 1824.

Des Banques publiques de prêts sur gages, et de leurs inconvénients. Crowned by the Academy of the Gard in 1829. Paris, 1829.

BEVERINI, BARTOLOMMEO.

Syntagma quo veterum nummorum pretium ac mensurarum quantitas demonstratur. Lucca, 1711.

Syntagma de ponderibus ac mensuris antiquorum. Neapoli, 1719.

BEZIAT, G.

Organisation de l'épargne du travailleur en vue de l'amélioration et de l'avenir des classes laborieuses. Paris, 1849.

BIANCHINI, LUDOVICO.

Principi del credito pubblico. Napoli, 1827.

Dell' influenza dell' amministrazione pubblica sulla industria nazionale, e sulla circolazione delle ricchezze. Napoli, 1828.

De' reati che nucciono all' industria ed alla circolazione delle ricchezze. Napoli, 1830.

Della storia delle finanze del regno di Napoli. Napoli, 1835.

Sui porti franchi, e sui lazaretti a peste. Napoli, 1833.

Sullo stato delle ferriere del regno di Napoli. Napoli, 1835.

Sulla conversione delle rendite enscritte nel gran libro del debito pubblico. Napoli, 1836.

Della storia economica-civile di Sicilia. Palermo, 1841.

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See CONDORCET.

BIGLEVELD.

De l'organisation du travail. Paris, 1848.

BIGNON, LOUIS EDOUARD, le BARON.

Born 3rd January, 1771, at Guerbaville, in the department of the Seine Inférieur. Secretary of State under the Empire. Elected a deputy in 1817, and created a peer in 1837. Died at Paris, 6th January, 1841.

Exposé Comparatif de l'état financier, militaire, politique et moral, de la France, et des principales puissances de l'Europe. Paris, 1815.

BIGOT DE MORAGUES, PIERRE, M.S.

LE BARON. Born at Orléans the 5th April, 1776. A member of many learned societies, and a voluminous writer on agriculture and geology. Died 15th June, 1840.

Essai sur les moyens d'améliorer l'agriculture en France, particulièrement dans toutes les provinces les moins riches, et notamment en Sologne. Paris, 1822.

De la misère des ouvriers, et de la marche à suivre pour y remédier.

Recherches des causes de la richesse, et de la misère des peuples civilisés. Paris, 1834.

Du paupérisme, de la mendicité, et des moyens d'en prévenir les funestes effets. Paris, 1834.

BILHON, J. J. F. Born at Avignon 2nd February, 1759. Held an appointment at the Finance Department at Paris, and died 8th April, 1834.

Gouvernement des Romains considéré sous le rapport de la politique, de la justice, des finances, et du commerce. Paris, 1807.

Principes d'administration et d'économie politique des anciens peuples, appliqués aux peuples modernes. Paris, 1819.

BILL BROKER, or BILL DISCOUNTER. It is of the utmost importance in Political Economy to understand the difference between the modes of doing business as a bill broker, or bill discounter, and a banker, as they are universally confounded, and we are not aware of a single economical writer in England since Adam Smith, who has understood it. A bill discounter does business by buying bills of exchange with CASH.

Many, as well, receive deposits at call from the public, and thus they may be described as borrowing from one set of persons to lend to another set. But a banker, as we have seen in the article BANK, buys bills of exchange with CREDIT, and can create credit to a much larger amount than he has cash. He then multiplies credit. Thus the distinction between a bill discounter and a banker is that the first buys debts with cash, and the second with credit; the first adds nothing to the capital of the country, he only puts into greater activity the capital that already exists; the second, as every one who knows the mechanism of banking admits, creates capital, by creating credit, which circulates as money.

The readers of this work may be somewhat surprised to learn that neither Adam Smith, nor any other economical writer in England, nor any of the numerous Committees of Parliament who have sat on Banking during the last sixty years, have had the most distant conception of the ordinary business of banking, or of its effects. And the Report of the last Committee of all, which sat in 1858, shews the most manifest want of knowledge on the subject. Its expressions all refer to the business of bill discounting, and not banking. There is no greater error that infects Political Economy since the expression Balance of Trade, than the general notions of Banking.

BILLET, JAMES.

Institutes of Political Economy, adapted to all nations, but especially aimed at the regeneration of France. Taunton, 1849.

BILLIARD, FRANÇOIS JACQUES M. E.

De l'ordre naturel des Sociétés, étude philosophique sur la constitution des états. Paris, 1847.

BILLIET.

Du commerce, des douanes, et du système de prohibitions considéré dans ses rapports avec les intérêts respectifs des nations. Paris, 1825.

BILLINGSLEY, JOHN. Of Ashwick Grove.

A general view of the agriculture of the county of Somerset. London, 1798.

BILL OBLIGATORY, OF CREDIT, or OF DEBT. The names by which were known formerly those instruments of credit which are now called PROMISSORY NOTES.

We have observed that a bill of exchange (BILL OF EXCHANGE) by its very name, *litteræ cambitorie*, denotes an instrument of credit drawn by a person in one country, and addressed to some one in another country. And such an instrument naturally assumed the form of a letter addressed by the creditor to the debtor, directing him to pay a certain sum of money at a certain rate of exchange. The use of these instruments of credit between different countries long preceded the use of instruments of credit within the same nation.

Credit in the form of promissory notes was well known to the Greeks, but we have no evidence that these notes were transferable. These were not made transferable till long after bills of exchange were. About the end of the 16th century the merchants of Amsterdam, Middleburgh, and

Hamburg, and some other places, began to use instruments of credit among themselves, and as the parties came into personal contact, they naturally assumed the form of an acknowledgment of the debt by the debtor, with a promise to pay it to bearer on demand, at the time fixed. These were called bills obligatory, or of debt, or of credit, and were transferable by indorsement in all respects like bills of exchange.

Gerard Malynes, in his *Consuetudo, or, Lex Mercatoria*, gives a very full account of these bills and strongly advocated their introduction into England; but he saw that the Common Law of England, which strictly forbids the transfer of debts, was a bar to it. The first promissory notes introduced were by the goldsmiths, or bankers, but they were not recognized by the law. The first promissory notes recognized by law were those of the Bank of England, which were technically called bills obligatory, or of credit. This name was retained in the Bank of Ireland Act. But this name has now been entirely superseded by that of **PROMISSORY NOTES**, or **BANK NOTES**, which see.

BILL OF EXCHANGE. We have observed (**CREDIT**) that there are two great divisions of instruments of Credit, one in the form of **PROMISES** to pay, which were formerly called Bills of Credit, or of Debt, or Bills Obligatory, but which are now known by the generic name of **PROMISSORY NOTES**, and the other in the form of **ORDERS** to pay, which are chiefly known by the name of Bills of Exchange, which include, also, Letters of Credit, Bankers' Drafts, and Cheques.

2. From the immense magnitude of the transactions carried on in modern times by means of instruments of Credit, a very extensive and subtle branch of law has sprung up, which every Political Economist should master, as an essential portion of his science. In the following article we shall not give any general view of the law of Bills of Exchange, but refer our readers to the works mentioned at the end of it. But there are certain portions of the law which it is indispensably necessary to know, in order to form a true comprehension of their nature, and which involve some of the most subtle conceptions in Political Economy, and these only we shall notice.

3. In its most general form a Bill of Exchange is a letter from one person to another, **ORDERING** him to pay—first, a certain sum of money; secondly, to a certain person; thirdly, at a certain event.

The person who addresses the letter is called the *drawer*, the person to whom it is addressed is called the *drawee*; and the person to whom it is to be paid is called the *payee*.

It is the payee's business, on the first convenient opportunity after he has received the letter, to present it to the drawee, to know if he will pay it; if he consents to do so, it is usual for him to write his name across the face of the bill, and he is then called the *acceptor*.

Now, with respect to the three essentials of the Bill, we may remark:—

1. That though the bill must be expressed to be payable in a fixed and certain sum of money, it is yet forbidden to be the appropriation of any *particular* sum of money, or to be payable out of any *particular fund*. If an instrument were to

be drawn in such a form, it would *not* be a Bill of Exchange. Thus, though a Bill is expressed to be payable in money, it, as well as all other instruments of credit, is **ABSOLUTELY SEVERED** from all connexion with any specific money, and it circulates on the mere belief, or *credit*, that the person by whom it is to be paid, can do so at the appointed time.

Thus we see how it is essentially distinguished from a Bill of Lading (**BILL OF LADING**), which is always the representative of a particular quantity of goods. A Bill of Exchange always circulates in commerce, severed from money. A Bill of Lading is always inseparable from goods.

4. This doctrine of the separate and independent existence of Bills of Exchange and other instruments of credit, and the non-independence of Bills of Lading, is, beyond all question, the great master-subtlety of Political Economy. Its reason and meaning is fully explained in the subsequent part of this article, as well as under **CREDIT**. It is the **PONS ASINORUM** of Political Economy. A confusion on this point has been the cause of some of the most terrible calamities the world ever saw, and is the root of those wild theories of currency of which John Law's is the type. And there is the greater necessity that we should explain and enforce it, as several very able Economists have been beguiled into error, and have adopted the very one of Law.

5. 2ndly. With respect to the person:—

The drawer may make the bill payable either to a third person, or to his order, or to himself, or to his own order.

If the drawer make it payable to himself only, or to a third person only, without inserting the words "or order," the bill can be paid only to the person named, and cannot be transferred to any one else, or cannot be *negotiated*, as it is termed.

If the words "or order" are inserted after the payee's name, he can transfer it to any one else. This is done by writing his name on the back of the bill, hence it is called an *indorsement*, the person who does it is called the *indorser*, and the person to whom it is delivered, is called the *indorsee*.

The indorsement may be either special or general. If the indorser inserts the indorsee's name, and makes it payable to the indorsee's order only, then it can only be transferred or paid by the indorsee's indorsement; and he may transfer it in a similar manner if he pleases, and so on through any number of hands.

But if the first indorsee to whose order it is payable delivers it with his own name only, written on the back, it is called an *indorsement in blank*. Its effect is that it makes the bill transferable by mere delivery, without any farther indorsement, exactly like a bank note, or money; and the bill is then *payable to bearer*, like a bank note.

Formerly, indorsement was in all cases *necessary* to transfer the property in a bill, or note. But in English law this has ceased to be the case though it is so still in the law of some foreign countries. It became the custom of merchants in England, which has long acquired the force of law, that any instrument of credit indorsed in blank, may be transferred by simple delivery, without any further indorsement.

The general rule of English law is now, that if any instrument of credit whatever, whether it be a bank note, or a bill of exchange, be taken in exchange for goods, or money, in any transaction, it is a final closing of that transaction, and the receiver has no remedy against the transferer, if the instrument be not paid. *The payment is in fact in all respects as valid and final as if it were money.*

Except only in the case of fraud, where the payer knew that the banker or person, whose note or bill he tendered, was bankrupt or insolvent.

In the case of bankers' notes issued by persons who were well known in the neighbourhood, the custom of indorsement very soon fell into disuse, though not sanctioned by law, and they are commonly taken without indorsement. But that does not affect the law of the case; it is done at the risk of the taker.

In the case of bills of exchange, it is still the custom to indorse them on a transfer; at least there are very few persons who would take them without indorsement. And the effect of the indorsement is this: that if the bill be not paid by the acceptor at maturity, and if the owner, or holder, of it gives *immediate* notice to any, or all, of the preceding parties on it, he has a claim against them for payment of it.

But this demand for payment must be made without delay, in almost all cases within twenty-four hours after the fact of non-payment is known to the holder. If delay be made in notifying the fact, and demanding payment from the parties liable, they are absolved, and the holder's remedy is gone.

Thus, in modern practice, the indorsement is merely a *limited warranty of soundness*. There is no other difference whatever between selling goods or money for a bill with, or without, indorsement, than between selling any other article, say a horse, a watch, or a carriage with, or without, a limited warranty. It is in all cases a sale. In the cases of a bill taken without indorsement, or a horse bought without a warranty, the sale is final and conclusive; in the case of a bill taken with an indorsement, or a horse bought with a warranty, the sale may be cancelled, if the demand be made within the time limited by the warranty, otherwise it is also final and conclusive.

6. *Srdly*. With respect to the event:—

It must be certain, and not contingent. Thus the bill may be made payable at sight, or on demand, or at a certain time after the date of the bill.

Bills made payable on demand are actually payable on demand. Bills made payable at a certain time after date, were always payable on demand when that time arrived. But in almost every place, certain days were allowed before the holder could commence an action for non-payment of the bill. These were termed *days of grace*, and, by mercantile usage, these days are now in fact incorporated with the bill, and the last day of grace is now held to be the day on which the bill is to be presented and paid. The days of grace vary in different places, but they are usually from three to ten.

7. The usual form of a Bill of Exchange is thus:—

London, January 1, 1860.

£287 15 8.

Three months after date, pay to myself, (or A. B.), or order, the sum of Two hundred and eighty seven pounds, fifteen shillings, and eightpence, value received.

WILLIAM SMITH.

To Mr JOHN COX,
Linen-draper,
Strand,
LONDON.

It is usual in English bills to insert the words "value received," but it is not necessary. In former times it was necessary to state what the debt arose from, whether money or goods. But that has long fallen into disuse in this country.

Such are the essential points of these instruments, which are the mighty moving power of modern commerce. Nothing appears more simple, but, like many other things of great apparent simplicity, they required centuries to bring them to their present state of perfection.

8. *The history of Bills of Exchange.* It is a question which has been much disputed, whether bills of exchange were known to the ancients. Some writers, indeed, and particularly Dupont de Nemours, boldly affirm that they were well known, and used in all the great commercial cities of antiquity, Tyre, Carthage, Corinth, Athens, &c. But as he brings forward no authority for this assertion, we may well be excused from believing it on his *ipse dixit* only. Other writers, however, think that a few passages in Isocrates and in Cicero, are sufficient proof of the fact. These we shall consider shortly.

Credit, indeed, in its simplest form of a direct loan from one person to another, with a promissory note as evidence and security for the debt, was well known both to the Greeks and Romans. We have the very word for a promissory note, *χρηόγραφον*, which was adopted by the Romans as *chirographum*. We also know that the Roman bankers invented the method of paying by cheques. Dealings on credit were also well known at Rome. And by that amusing comedy, the *Pseudolus* of Plautus, we know that a trick, with which our bankruptcy courts are familiar, was known long ago. When Callidorus wants to raise money in his amatory difficulty, Ballio says to him, l. 3. 67.

"Eme die coeca, herole, olivom; id vendito oculata die."

Which very dark sentence the learned interpret to mean, "Buy oil on credit, and sell it for ready money." Thus, in its simplest and rudest form, credit was certainly well known to the ancients. But that great invention, by which debts are made saleable, and credit is brought into commerce like merchandize, and made the great productive power of modern times, was—as far, at least, as we have been able to discover—wholly unknown to the ancients.

9. The only evidence that we have, we believe, that Bills of Exchange were at all known to the ancients, consists in a passage in Isocrates and a few in Cicero.

In the *Trapeziticus* of Isocrates, which is a speech in an action against the banker Pasion for having defrauded one of his customers, he says: "Moreover, Pasion has tried to persuade some people that I had no money at all here, and that

I only borrowed 300 staters from Stratocles. It is therefore worth while to explain this matter, that you may see what arguments he relies on to cheat me of my money. It happened, judges, that Stratocles was just going to sail to Pontus, at the very time when I wanted to bring some money from there. I, therefore, asked him to leave his moffey with me, and that he should receive it from my father in Pontus, thinking it would be a great advantage not to hazard my money in a voyage, at a time when the Lacedæmonians were masters at sea. This I think is no proof at all that I had no money here. On the contrary, my transaction with Stratocles is the very best proof that I had money in his hands. For, when Stratocles asked me who was to pay him his money if my father would not do what was ordered in the letter; or, if he came back here, and did not find me, I took him to Pasion, who promised that he would pay him principal and interest. And will you believe that he would so easily have made himself liable for so much money, if I had had none deposited with him?"

We have quoted this passage at length, because it is the only one, we believe, that was ever brought forward to prove that the Greeks used bills of exchange. And some writers fancy that they can discover in it that the Greeks habitually used them. But we think that it will not warrant any such conclusion. Granting that it does bear a resemblance to drawing a bill on his father at Pontus, the particularity with which it is detailed, seems to us to prove that it was an isolated transaction, which it was necessary to detail at full length to the judges. If the custom of drawing bills on foreign cities were well known, it would have been stated in much shorter terms. Moreover, there is not in the original Greek a single word which bears a technical signification, such as *draft*, or *bill*. To argue that, because on a single occasion a man gives another a letter of credit on his father, and gets his banker to guarantee payment of it, the whole of the intricate system of bills of exchange was known and commonly used by the Greeks, seems to us very much the same as it would be to argue that printing was well known to them, because some single individual may, on some single occasion, have stamped an impression on parchment. The untechnical language, and the particularity with which the transaction is described, seem to us to shew that it was not a usual, or well understood thing. We therefore conclude that what evidence there is, rather tends to prove that the Greeks were wholly unacquainted with the use of bills of exchange.

In Cicero we find several passages which speak of remitting drafts. Thus, *Epist. ad fam. l. to Caninius Salustius*. "Se ait curasse, ut cum quæstu populi pecunia permutaretur" "He says that he has taken care that a draft for the money should be sent (to Rome) along with the people's share of the profit." So when his son is going to Athens he writes to Atticus, xii. 24, "Sed quæro, quod illi opus erit Athenis, permutarine possit, an ipsi ferendum sit."—"But I wish to know whether the money which he will require at Athens can be sent by a draft, or whether he must carry it with him." So also, xv. 15, "Quare velim cures, ut permutetur Athenas, quod sit in annum sumptum ei."—"Wherefore I wish you

to take care to send him a draft at Athens for his yearly expenses." So also, v. 15, "Ut vereor, ne illud quod tecum permutavi, versurâ mihi solvendum sit."—"So that I fear that I must borrow money to pay the draft you changed for me." So also, "Scripseras ut H. S. xii. permutaret."—"You had written that he was to send me a draft, or bill, for 12 sestertia."

M. Nonguiet (*Des lettres de change, &c.*, Vol. I. p. 29) quotes several writers, as Bernier, Savary, Locré, who deny that Bills of Exchange were known to Roman law, in which they, as well as Pothier, who says the same, are undoubtedly right. But some of them also assert, that there is no trace of their existence to be found in Roman, or ancient, manners and customs, but this is, undoubtedly, going too far, as the above extracts from Cicero certainly prove that Bills of Exchange, or drafts, were known and used, to a limited extent. That they do not appear in Roman jurisprudence is no proof that they did not exist in fact. We know, as a fact, that they existed in England for four centuries before any case on them found its way into our law books. It cannot, therefore, we think, be denied that, to a certain extent, they were known to the Romans. For their use in the East, see CURRENCY, PAPER.

10. The period of the invention of bills of exchange in Europe in modern times, is also somewhat obscure. Mr. Fortune, indeed, says that they were in use in 1160, but he does not give any authority for this, and we have not been able to discover any. A host of writers, however, have adopted the conjecture that they were invented by the Jews in 1181, upon their expulsion from France by Philippe Auguste. The Jews were the earliest money-dealers in Christendom, and hence it is natural to ascribe all improvements in money dealings to them. M. Nonguiet quotes the opinion of Cleirac, Savary, Forbonnais, Bernier, Toubeau, Grégoire, Bishop of Blois, Montesquieu, Voltaire, Anquetil, Isambert, Salvador, Merlin, Capefigue, Rigaudier, that bills of exchange were invented by the Jews at that epoch, and adopts that opinion himself.

11. Nevertheless, a critic must not suffer his eyes to be dazzled by the multitudes of conjectures even of eminent men. Conjectures are nothing but conjectures, whatever the number or eminence of the persons may be, who transmit them from one to another. Amongst all these writers, then, as far as we can see, not one has adduced a single fact, or any historical evidence, to support this conjecture. However probable it may be, therefore, that the Jews may have invented them, we must yet try if we can discover any solid basis of facts to help us.

12. Now, in the first place, it appears to us that those writers who have attributed the invention of bills of exchange to the Jews on this occasion, have not well considered the nature of an exchange. They appear to suppose that a body of persons being expelled from a country *en masse*, can transmit their effects by bills of exchange. But this is evidently an error. Bills of exchange arise out of *reciprocal* debts. There must be a retransmission, as well as a transmission, to complete the circuit as we may say. In order that an exchange may exist between any two places, there must be a well organized correspondence, and mutual dealings, which we do not think there

is any evidence to prove existed in those times. Bills of exchange originate out of peaceful dealings and in quiet times, and not in turbulent disorders.

13. In the next place, we must regard the name. The original name for bills of exchange is *litteræ Cambitorie* or money dealers' drafts, in modern phrase, *bankers' drafts*. It is perfectly clear, then, that bills of exchange originated with the *Cambitores*. Now, no one alleges that the *Cambitores* were exclusively Jews. The *Cambitores* were persons who originally kept tables in the cathedrals for the exchange of money of foreigners who came to worship. Now if bills of exchange had originated with the Jews, we should naturally have expected them to be called by some name indicative of their origin. Usury was not permitted to Christians, but it was to Jews, and hence it was called *Judaismus*. Hence, if bills had been invented by the Jews, we might have expected them to be called *litteræ Judaice*, or something of that sort. Now, their name indicates their origin very clearly, and it does not point to the Jews, but to the *Cambitores*.

14. Having thus shewn the persons with whom bills most probably originated, we must next endeavour to find some historical evidence as to when and how they originated.

The power and the arrogance of the Popes had long been increasing, till, in the time of the crusades, they claimed the general power to tax all Christendom to support them, and in process of time they sent their own agents to collect the money. These agents were correspondents of the Italian *Cambitores*. In the middle of the 12th century, the merchants of Florence took up the business of money dealing to a great extent, and their example was soon imitated by other Italian cities, such as Lucca, Sienna, and especially the Lombard cities of Milan, Placentia, and Asti. Cahors, in France, was also remarkable for its monetary transactions. Wherever the Pope's taxes were to be collected, these bankers sent agents to collect the money, and they also advanced money at heavy interest to those who required it. In the countries nearer Rome, these persons were established first. We have the exact date when they first came into England. In 1229, the Pope sent his chaplain Stephen, and a nuncio, into England, to demand a tenth part of all the moveable goods of all persons, lay as well as spiritual, in England, Ireland, and Wales, to support his war against Frederick. A Parliament was held to consider this demand. The foolish king had already agreed to it, but the lay lords indignantly refused to subject their lands to the Pope. The ecclesiastics, however, after considerable grumbling, were obliged to yield, from fear of excommunication. The nuncio then exhibited the letters authorising him to collect these tenths. The strictest valuation was made of church property. Many of the Bishops were obliged to pawn their church ornaments and vessels, and to borrow money at heavy interest from merchants who had come in with the nuncio for this very purpose. These were the Caorsini, or Cahorsini, bankers of Cahors. (*Holinshed, Vol. II. p. 364, Edit. 1807*). These bankers exacted such heavy interest that they excited the people against them. Holinshed says, "This year (1235), the Bishop of London pronounced the sentence of excommunication against certain

usurers, called Caorsini. But because the said usurers shadowed themselves under the pretext of the Pope's merchants (as they named themselves), they prevailed so much by the favor of the Court of Rome, that the said Bishop, being sick and feeble, was cited peremptorily in the parts beyond the seas, before judges chosen forth by the same usurers, to make answer for such high injury as he had done the Pope's factors." In 1251, the Caorsini, who had bought large houses in London, were again attacked. They were cited by the King for taking unlawful usury; some were fined and imprisoned. The rest hid themselves, and at last were allowed to continue their business on paying heavy compositions. The prelates, however, did not dare to attack them, as they were under the protection of the Pope. The Jews rejoiced to see them treated in the same manner as themselves.

15. We need not multiply notices of these persons, which are abundant enough after this date. There is almost an absolute certainty that Bills of Exchange were invented by these persons. We have here what is exactly wanted—a well organised system of correspondence. And Ranke bears out this opinion. He says, (*Geschichte der Römische Päpste Vol. 1, p. 404, Edit. 1838.*) "Wenn man bemerkt hat das die Wechselgeschäfte des Mittelalters ihre Ausbildung hauptsächlich der Natur der päpstlichen Einkünfte verdankten, die in aller Welt fällig, von allen Seiten an die Curie zu übermachen waren."—"As it has been observed that the business of exchange, or banking, in the middle ages, received its chief extension from the nature of the papal revenues, which, falling due throughout the world, had to be remitted from all quarters to the Curia."

16. M. Nonguer cites the *Statutum Avenionense* of 1243, *de litteris cambii*, and also from Nicolai de Passeribus, a law of Venice, in 1272, *de litteris cambii*. Now if they were merely a secret invention of the Jews, we cannot think that they would so soon have become known to their enemies, or been publicly recognised by them.

17. Hence we see, that originally a bill of exchange was a banker's draft, addressed from a person in one country to some one in another, whose business it was to exchange foreign money. From these persons it naturally spread to commerce, but at what time does not appear. The oldest bill of exchange known to exist is quoted from Baldo by Nonguer. It was drawn probably in 1390, in the following terms :—"Al nome de Dio, Amen. A di primo di Febuario MCCCLXXXI, pagate per questa prima lettera ad usanza, da voi medesimo libre 43 de' grossi, sono per cambio de' ducati 440, che questi chi hane ricevuto da Sejo el Compagni attramente le pagate." Another is quoted by Capmany of 1404, which was drawn by a Luccese merchant of Bruges on his correspondent at Barcelona, and negotiated by him in Bruges. When the bill was presented for payment in Barcelona it was dishonoured. In neither of these bills are there any words of negotiability, yet we find that one was negotiated, whence we may conclude that the practice of negotiating them sprung up long before it was recognised on their face.

18. The time when bills were made negotiable has been much disputed. Several authors attribute it to Cardinal Richelieu, 1620—1642.

And in this opinion M. Nonguier agrees. But if it is meant to affirm by this that Richelieu first made instruments of credit assignable, this is clearly a mistake. For in a bill of exchange quoted by Lawson (*History of Banking*, p. 38) of the date 1589, the power of negotiability is inserted in it. "Witnesseth this present bill of exchange, that I, Robert Anderson, merchant of the city of Bristowe, do owe unto Thomas Mun, merchant of the said city, the sum of 100 ducats; I say 100 ducats of current money of Spain, accounting after 11 rials of plate to the ducat, to be paid unto the said Thomas Mun, or his assigns, 10 days after, &c." It is remarkable, however, that Malynes, in 1622, says (p. 270, *Edit.* 1686).—"Neither can you make a bill of exchange payable to the bearer, or bringer thereof, (as you make your bills obligatory beyond the seas,) to avoid the inconvenience which might happen in derogation of the nobleness of the said bill of exchange, which every merchant is to maintain." But in the forms of bills given by Marius, writing in 1654, the words "or assigns," and "or order," are introduced in the bill. Moreover, Malynes, in his *Lex Mercatoria*, (1622), gives a full account of the bills of credit, which had been long used in Holland which were payable to bearer.

19. For a long time bills of exchange were confined to what their name indicated, namely—bills drawn in one country to be paid in the money of another. The Common Law of England, which inflexibly forbade the assignment of a debt, was of course a bar to their introduction into England. But the custom with respect to foreign bills was adopted by it, to facilitate foreign trade. It was long before the transfer of internal debts was adopted. At last it was adopted between London and York, and London and Bristol. Thus the custom of inland bills of exchange began. But it was still confined to different towns, and for a long time it was essential that a bill should be drawn in one town upon another. At last transferable bills were introduced between persons in the same town, or between wholesale dealers and retail dealers, and these did not assume the form of bills of credit, as we should expect they naturally would have done, as in Holland; but they still retained the form of a bill of exchange, as that was already tolerated by law. Thus by striking off one limitation after another, they have gradually become what they are now, merely an *order* from one person to another to pay money, and they have thus lost all trace of their etymological origin.

20. Having thus traced the origin and history of Bills of Exchange, and explained their legal essentials, we shall now proceed to investigate their nature, and the functions they perform in Political Economy. We shall also shew in what they resemble, and in what they differ from, Bills of Lading.

21. Several very able writers on Political Economy, seeing that Bills of Exchange are expressed to be payable in money, and that they circulate by indorsement, which transfers the right to demand the money they are said to represent; and, also, seeing that Bills of Lading are given in reference to certain goods, and that they circulate by indorsement, and transfer the right to demand certain goods, have drawn the conclusion that they are of the same nature, and

are to be classed together. They even give them the name of *fictitious*, or *representative* values, in opposition to money, as a real value, and they define credit to be the mobilisation of fixed property. The same writers, admitting that money is not a sign, or representative of value, but an independent substantive article of value.

22. Nevertheless, this is an error of the most fatal nature. It is one of the most momentous consequence in Political Economy. It is just one of those examples, which are to be met with in so many sciences, in which deceptive superficial resemblances are to be carefully guarded against; and for the true analogy we must penetrate deep below the surface, and we shall find it beneath a seeming opposition.

23. Money and instruments of credit are homogeneous—they are not *signs* or *representatives* of value, but independent substantive entities.

Bills of Exchange and Bills of Lading are *not* homogeneous. Bills of Exchange are independent entities; Bills of Lading are not independent entities, but only signs or representatives of value. Bills of Exchange are *not* signs or representatives of value.

24. In order to explain this clearly, we must shortly state the changes of opinion which have prevailed with respect to the nature of money.

When men began to speculate on the nature of money in modern times, they adopted what is called the Mercantile System. They thought that gold and silver were the *only* species of wealth, and that the only way to enrich a nation was to heap up as much gold and silver as possible. The fable of Midas is an exemplification of this craze.

No sooner were men convinced of the folly of this opinion than they rushed into the opposite extreme. They then denied that money was wealth at all. They considered wealth exclusively to consist in commodities; and because they were to be had in exchange for money, they considered money to be merely the *sign* or *representative* of wealth, or value. They then said that as money was merely the *sign* of wealth, that it was of no consequence what material it was made of. They then considered that it might be made of any material of no value, such as paper, and that as much money might be created as would represent all the wealth in the country. They maintained that so long as it *represented* some article of value it could not be depreciated. This was the basis of Law's theory of money, which proposed to create a paper currency to *represent* all the land in the kingdom. The history of experiments, founded on this doctrine, may be seen in the articles *ASSIGNATS*, and *BANKING IN FRANCE*, in this Dictionary. This idea is also at the root of those false theories of credit which are so prevalent at the present day, of mobilising all the property of the country, and coining the public funds into paper currency.

25. Midas and John Law are, therefore, the two poles of currency crazes. Turgot was the person who recalled the world to sober sense. He shewed that money was neither exclusively wealth, nor was it nothing, or only a *sign* of wealth. He shewed that money was simply an article of value, like any other article, and that it was not a *sign* of wealth, but an independent value, just as

anything else was. And this doctrine, that money was simply an article of independent value, became the corner-stone of true Political Economy.

26. But though this doctrine of Turgot's was an immense step gained, still he did not obtain the fundamental conception of the nature of money. For though it is true, it does not explain the true function that money performs in economy, it does not shew *how much* money is required. Aristotle, in former times, obtained the true conception (ARISTOTLE). He observes that Society is held together by mutual exchanges of services. When two services performed are equivalents, there is no need of money. But if a person does a service to another, and requires no immediate service in return, he requires something that will enable him to obtain that service at some future time, when he may require it. This conception, as we have shewn (CURRENCY), has also been seen by other writers, and especially by Bastiat (BASTIAT), and it is the basis of our own theory of money. Hence, leaving out of consideration at present, how money is obtained, and the quantity of it required to perform any particular duty, we obtain this great fundamental conception, that money is the representative of services due to the owner of it. It is the proof and the measure of services having been performed by the owner of it, for which he has received no equivalent service. And J. B. Say means exactly the same thing when he says that a sale is a demi-exchange. (SAY, JEAN BAPTISTE). Hence we see that money is in its nature general credit, as Burke called it, (BURKE,) or a general bill of exchange, as Adam Smith calls it. (SMITH, ADAM). Hence money is the proof of past services, it is the *representative of DEBT*.

27. Now we have shewn under CREDIT, that as the future productivity of the earth is an economical element, which may be bought and sold; so also the future productivity of each individual is, too, an economical element, which may be bought and sold. It may be brought into commerce, like any other merchandize, and the portion of it which is brought into commerce is called credit, and is usually represented by bills of exchange.

28. Thus, not only may a man trade with money which is the fruit of his past services, but also, he may trade with his expectation of performing future services. Now, as we have shewn that each man's *future* productivity is an economical element, it must be capable of being *measured*. And the unit of measurement is his capacity to pay £100 one year hence. Thus a trader's promise to pay £100 one year hence is the unit adopted in measuring his credit; and this is bought and sold in commerce just in the same way as a pound of butter, or a quarter of corn. The price, however, is expressed somewhat differently. When a commodity is bought, the quantity of money given for the article is named. When debts are bought, it is usual to mention the difference between the money paid and the amount of the debt, and this is called the *discount*. Thus, if a banker, or bill broker, buys a merchant's promise to pay £100 one year hence for £97, it is said to be £3 per cent. discount.

29. Now, when a person sells goods, or does a service to another, and receives money in payment, it is quite evident, as several eminent eco-

nomists have seen, that it is only a demi-exchange. The person who receives the money has not received any equivalent service in return, but only the right of demanding one at some future time from any trader he pleases. Thus he has received an instrument of *general* power.

Now, let us suppose that, instead of money, he receives a bill of exchange for the goods sold or the service done, it is quite clear that he is in the same position as in the former case, so far as this: he has done a service, the value of which is measured by the sum promised to be paid on the face of the bill, and which he may demand at the specified time from the specified person.

Hence it is quite clear that in the hands of the *holder* of the money or bill, they denote exactly the same thing. They are the proof, the measure, and the record of services due to him for services performed. The difference is that one is a *general* power, and the other a *special* or *particular* power. But it is quite clear that they are homogeneous in this:—they both *represent debt*, and not any particular goods or commodities, although they are exchangeable for them.

29. Thus in the hands of the holder they are each independent substantive entities, and are reckoned separately in the amount of his property. Thus even Mr. Thornton (*Inquiry into the nature and effects of paper credit*, p. 20), in enumerating the capital of merchants, includes in it "*debts due to our traders for goods sold and delivered by them.*" Thus it is fully admitted by Mr. Thornton, that an instrument of credit is capital when in the hands of the holder. This, one would imagine, admits that credit is capital. But so far from admitting the general proposition that credit is capital, he strenuously denies it.

The common argument used to shew that credit is not capital is this, as given by Mr. Thornton: "Paper constitutes, it is true, an article on the credit side of the books of some men, but it forms an exactly equal item on the debit side of the books of other men. It constitutes, therefore, on the whole, neither a debt nor a credit." Therefore it is *nothing*.

30. Now this argument looks somewhat specious, but let us investigate it a little closer. Suppose John Smith sells a horse to William Robins, but does not deliver it, and lets it stand in his stables. Now let each of them make up his books. It is quite clear that William Robins would add the horse to what he had, and John Smith would subtract the horse from what he had. Therefore the horse would stand as a credit in one man's book, and a debt in another's book, therefore the horse is *nothing*!

31. In fact the error is a very specious one, but it is one of the greatest importance, and demands explanation.

The argument is that as soon as a merchant has accepted a bill at three months, say, he is in debt, and the bill must be subtracted from his property.

This is a great error in fact and in law.

If a farmer takes a farm, and agrees to pay a yearly rent for it, he may be considered as having accepted a series of bills payable annually. But no one would ever say that because a farmer has agreed to pay rent a year hence, that he is in debt at the present time, and that that rent is to be subtracted from the present amount of his property, or that it is any diminution of his property.

It is quite clear that the future rents stipulated to be paid, are meant to be paid out of *future profits*, which are yet to be produced.

32. The merchant who buys goods at three months' credit, and accepts a bill, is just in the same position as the farmer. He is *not in debt*. If a landlord were to sue a tenant for rent due a year hence, he would be laughed at. So if any one were to sue a merchant on a bill not payable for three months, he would lose his suit. It is a well recognized rule of law, that *credit unexpired may be pleaded under the general issue*, which, being interpreted in the vulgar tongue, means that a man is not in debt until the time for payment arrives.

33. The error is easily explained by reference to the difference between Arithmetic and Algebra. Let us suppose that a man were to set off to walk from London to Brighton, and we were told that he had walked (15—10) miles to Brighton. If we were to consider the matter simply in an arithmetical point of view, we should say that he had merely walked five miles towards Brighton, and that was all he had walked. If it was said that that he had walked (10—15) miles to Brighton, it would in Arithmetic be sheer nonsense, as there are no absolute negative quantities in Arithmetic.

34.—But if we look at it in an Algebraical view, the case is very different. For then + and — merely mean opposite directions, or opposite qualities. If we were to interpret the expression that a man had walked (15—10) miles towards Brighton, it would mean that he had walked fifteen miles *towards* Brighton, and ten miles *back* again *from* Brighton. The result would be the same as in the former case, he would be five miles nearer Brighton than when he started, but he would have actually walked twenty-five miles. So if we were to say that he had walked (10—15) miles to Brighton, that would mean, Algebraically, that he had walked ten miles towards Brighton, and then fifteen miles in the opposite direction. That is, he would have passed through London and gone five miles on the other side. He would then be five miles further off from Brighton than when he started, still having actually walked twenty-five miles.

35. Thus, in Physical Science, the signs + and — are used to mean any opposites, no matter what. If a line drawn in one direction is positive, then one drawn in the opposite direction is negative. If a force pulling in one direction is positive, then a force pulling in the opposite direction is negative, and so on through all opposites; and especially, in Physical Science, *if time past is positive, TIME FUTURE IS NEGATIVE*.

36. In Arithmetic, absolute negative quantities have no existence, but in Physical Science negative quantities have a real existence, and are independent entities, just as much as positive ones. In Physical Science quantities extend on both sides of zero to infinity, the one side positive and the other negative, but both equally real.

37. These views furnish us with a manifest solution of the points we are discussing. If money, which represents a past exchange, or past service rendered, is positive, an instrument of credit, which is negative, represents a service to be rendered, or an exchange which is *to be made*. And this has a real existence, and is an economical

element, just as much as the former. Thus Political Economy, like Physical Science, deals with positive and negative quantities; the former representing past time, the other future time, both having equally a real existence.

38. Thus if a merchant buys goods for £75 at three months' credit, which he expects to sell at £100, his property would be estimated thus—
£100 — £75.

which, being interpreted according to the way we have been illustrating, means that he has made an exchange for £100, and that he is bound to make a future exchange for £75. Now it may be true that the net result to him is, that he is worth £25, but yet it is quite clear that the £100, and the £75 are each separate and independent elements, and must be reckoned so.

39. We now see the analogy between Political Economy treated on the conception of Exchanges and Physical Science. A bill of exchange has a real independent existence exactly analogous to negative quantities in Physical Science. It is an independent entity, which may be exchanged just like any other commodity. If money, which is positive, represents the past productivity of the individual, a bill of exchange, which is negative, represents his future productivity.

40. We now see at once why it is contrary to the very nature of a bill of exchange to *represent*, or be *appropriated* to any specific goods or money, as a bill of lading does. Over and above the actual quantity of goods, the future productivity of every merchant is an economical element, which may be bought and sold as any other merchandise, and that is represented in commerce by bills of exchange. And thus the fundamental analogy between money and instruments of credit is clearly apparent; as well as the fundamental distinction between bills of exchange and bills of lading.

41. And this furnishes at once the solution of the false analogy which deluded Law, and so many others since. He saw that a merchant's obligations might greatly exceed the quantity of his cash, and therefore he thought that as the instrument of credit only *represented* money, that other paper instruments might *represent* any other material wealth. Paper instruments of credit in this country exceed the cash many times, but an attempt to coin only a portion of the land of France into paper money produced the most gigantic convulsions (Assignats). The cause of it is extremely plain; credit is independent property, and, like many other species of property, may greatly exceed in quantity the amount of cash. The value of the land in England many times exceeds the quantity of cash, so also the public funds, and shares, and stocks of all sorts. And they only maintain their value by a certain portion of each being offered in exchange at any time.

42. There is also a further curious analogy between the opinion of early Algebraists, and those of Political Economists. It is very common for the latter to call instruments of credit *fictional* values, as opposed to money, which they call a *real* value. The early Algebraists gave the very same name to negative quantities, when they were first discovered. Every one knows that Algebra grew out of Arithmetic by substituting general symbols for figures. The inventors of it

found that they had constructed a machine much more powerful than they had thought of, and which, in many cases, brought out results which they could not explain. These were *negative* quantities, which Cardan called *res*, or *æstimationes fictæ*, and they retained this name even so late as Descartes. The very same thing puzzled the Hindoos, among whom Algebra was indigenous. They could not understand the existence of absolute negative quantities. It is now well agreed that they represent merely opposite quantities to positive ones. The very same idea is familiar in book-keeping, where the terms *debtor* and *creditor* are used to signify the opposite operations of money or goods received, and money or goods paid.

44. Hence we arrive at the great doctrine that bills of exchange have an independent real existence, and that they are analogous to negative quantities in Algebra. This doctrine—that bills and notes are independent entities—is perfectly well known to every lawyer. Thus Mr. Justice Byles says, (*Preface to Treatise on the Law of Bills of Exchange*, &c.) “It will not, perhaps, be an unreasonable inference that the bills and notes of all kinds, issued and circulated in the United Kingdom in the space of a single year, amount to many hundred millions, and that this species of property is now, in aggregate value, inferior only to the land, or funded debt of the kingdom.” Now Sir Barnard Byles would never say, nor would any lawyer say, that the property in bills of lading amounted to a large sum, or any sum at all, for the simple reason that they have no separate existence at all, but are mere tickets on the goods they represent, and are part of them, just as the title-deeds to an estate are not separate property, but *part* of it.

45. So also in a merchant's books a bill of exchange is treated and valued like any other merchandize, but no one would ever treat or value a bill of lading as separate merchandize.

One source of confusion arises from the fact, that because bills of exchange are expressed to be payable in money, many persons conclude that they are actually paid in money. Now, under **BANKING** and **CREDIT**, we have shewn that this is a very great error indeed. In London, nineteenth-twentieths of commercial bills are paid *not by cash*, but by the creation of bank Credits. In ordinary cases the system of bills of exchange may go on for ever without payment in any coin whatever, but no one ever supposed that a bill of lading could be extinguished by anything but the delivery of the actual goods.

46. We shall not prolong this article, which has already reached so great a length, but we may refer to the one on **CREDIT**, in which the general doctrine on the subject is more fully explained. This article is meant to be taken in connection with the others on instruments of credit, **BANK NOTE**, **PROMISSORY NOTE**, as well as with **BILL OF LADING**, and **DOCK WARRANT**, for the purpose of exhibiting the fundamental distinction between negotiable instruments, which have a superficial resemblance. See also particularly **BAUDRILLART**; **BOCCARDO**; **CIESZKOWSKI**; **EXCHANGE**; **GARNIER, JOSEPH**; **HILL, EDWIN**; **LAW**.

A Treatise of the law of bills of exchange, promissory notes, bank notes, bankers' cash notes, and checks. By Sir John Barnard Byles, one of the

Justices in the Court of Common Pleas. London, 1858.

A practical Treatise on bills of exchange, checks on bankers, promissory notes, bankers' cash notes, bank notes. By Joseph Chitty. London, numerous editions.

Summary of the Law of bills of exchange, cash bills, and promissory notes. By Sir John Bailey, Bart., one of the Justices of the Court of King's Bench. Sixth edition, by G. M. Dowdeswell. London, 1849.

Des lettres de change et des effets de commerce. By Louis Nonguier. Paris, 1851.

BILL OF LADING. When goods are shipped on board a vessel, it is usual for the master to sign receipts for them in triplicate. These may be sent on to the consignees, resembling, to a certain extent, Bills of Exchange. They may be transferred by indorsement any number of times, and the property of the goods passes with the Bill. From this apparent similarity many writers have drawn the most erroneous conclusion that Bills of Lading and Dock Warrants (**DOCK WARRANTS**) are in all respects analogous to Bills of Exchange, and they call them by the common name of *fictitious*, or *representative* values. But this is an error of the most momentous nature in Political Economy. When goods are delivered to be carried, and the carrier gives a bill of lading for them, no property in the goods passes to the carrier. *It is not an EXCHANGE but a mere BAILMENT.* That is, the property in those very goods remains inseparably associated with the Bill of Lading, and passes along with it, through any number of hands. It resembles exactly the title deeds of an estate. A Bill of Lading is *one* property with the goods. If the carrier, or person to whom the goods are entrusted, should convert them to his own use, he would be a thief. He is merely entrusted with the custody of them for a particular purpose, and his sole duty is to keep them safe, and deliver them to the true owner.

But in the case of a bill of exchange, or any other instrument of credit, the transaction is of a totally different nature. Whenever they are used, the property of the money, or goods, passes to the person to whom they are delivered. Thus, when a man places money in a bank, the property of the money passes to the banker, and he may use it in any way he pleases for his own profit. The property of the note, or receipt he gives for it, passes to the depositor. Thus the money and the receipt or note are absolutely severed, and the instrument becomes **CREDIT**; that is, it circulates because any one who takes it merely *believes* that he can exchange it for money at the proper time. Thus the money and the instrument of credit are *two* properties, and may, and do, circulate independently in commerce. So, when a merchant sells goods, and takes a bill of exchange, the property in the goods passes to the buyer, and the property in the bill of exchange passes to the seller; and the goods and the bill of exchange form *two distinct properties*, which circulate independently in commerce. Thus, in the case of a bill of lading, there is no exchange; in the case of an instrument of credit, there is an exchange. The former represents goods, the latter does not represent goods, but is an independent, exchangeable quantity, like any article

of merchandize. Thus instruments of credit form independent items in the catalogue of the property of the country; bills of lading do not.

This distinction is of the utmost possible consequence in Political Economy; in fact, it is the *PONS ASINORUM* of the subject. It is entirely from a confusion on this point, that Law's theory of money is based. It shews at once the fallacy of that definition of credit, which is becoming so popular on the continent, and has even led astray many able economists, that credit is merely the *mobilisation of property*. That is *LAWISM*. This distinction is further enforced in the series of articles on Credit in this Dictionary, to which we may refer. (*BANK NOTES*; *BILLS OF EXCHANGE*; *BAUDRILLART*; *BOCCARDO*; *CIESZKOWSKI*; *DOCK WARRANT*; *EXCHANGE*; *GARNIER*, *JOSEPH*; *HILL*, *EDWIN*; *LAW*.)

BINDON, DAVID.

An essay on the gold and silver coin current in Ireland. Dublin, 1729.

BINNS, JOHN.

Prize essay on systematic overtime working and its consequences. Manchester, 1846.

BINNS, JONATHAN. Assistant agricultural commissioner on the Irish Poor Inquiry.

Notes on the agriculture of Lancashire, with suggestions for its improvement. Preston, 1851.

BIRCH, EDWARD, THE REV.

Remarks on Socialism. London, 1839.

BIRCHETT, SAMUEL.

A descriptive list of the principal copper coins, or tokens, issued between the years 1786 and 1796. Leeds, 1796.

BIRD, ROBERT.

Proposals for paying great part of the national debt, and reducing taxes immediately. London, 1780.

BISCHOFF, JAMES.

A comprehensive history of the Woollen and Worsted manufactures, and the natural and commercial history of sheep, from the earliest records to the present period. London, 1842.

Foreign tariffs, their injurious effect on British manufactures, especially the woollen manufactures. London, 1843.

The wool question considered. London, 1828.

BISHTON, J.

General view of the agriculture of the county of Salop. London, 1794.

BIZET, E. CHARLES. Was keeper of the abattoirs of Paris in 1848.

Du commerce de la boucherie, et de la charenterie de Paris, et des commerces qui en dépendent. Paris, 1847.

BIZET, PIERRE.

Histoire métallique de la république de Hollande. Paris, 1867.

BLACKER, WILLIAM.

The evils inseparable from a mixed currency, and the advantages to be secured by introducing

an inconvertible national paper circulation. London, 1844.

BLACKLOCK, AMBROSE.

A treatise on sheep, with a chapter on wool, and history of the wool trade. Glasgow, 1838.

BLACKSMITH. A pseudonym.

A conversation between a Blacksmith and a Merchant upon the subject of passing guineas by weight only. Dublin, 1750.

BLAINE, D. ROBERTSON.

On the laws of artistic copyright, and their defects. London, 1853.

BLAINE, WILLIAM.

An enquiry into the state of slavery among the Romans. Edinburgh, 1833.

BLAISE, ADAM. One of the contributors to the Dictionnaire d'Economie Politique.

Des monts-de-piété, et les banques de prêts sur gage en France, et dans les divers états de l'Europe. Paris, 1856.

BLAISE, ADOLPH GUSTAVE. Born at Epinal, the 17th June, 1811. In 1848, he was general secretary to the department of the Seine-Inférieure. One of the contributors to the *Journal des Economistes*. Along with M. Joseph Garnier, he published the course of lectures delivered at the *Conservatoire des Arts et Métiers*, by Blanqui, in 1836, 1837, and 1838. He edited that of 1838-9 alone.

BLAIZE, ANGE. Born at St. Malo, the 28th December, 1811, director of the Mont de Piété of Paris.

Des monts-de-piété, et des banques de prêt sur nantissements en France, en Angleterre, en Belgique, en Italie, en Allemagne, &c., &c. Paris, 1843.

Des commissionnaires au mont-de-piété de Paris, et des bureaux de prêt auxiliaires. Paris, 1844.

Des hôpitaux et hospices civils de la ville de Paris. Paris, 1844.

BLAKE, SIR FRANCIS.

The efficacy of a sinking-fund of one million per annum considered. London, 1786.

The propriety of an actual payment of the public debt considered. London, 1786.

A proposal for the liquidation of the National Debt. London, 1795.

The abolition of tithes and the reform of the Church Revenues. London, 1795.

BLAKE, WILLIAM, F.R.S.

Observations on the principles which regulate the course of exchange. London, 1810.

Observations on the effects produced by the expenditure of Government during the restriction of cash payments. London, 1823.

Observations in reply to a Pamphlet by the Rev. Richard Jones, on the assessment of Tithes to the poor-rate. London, 1839.

BLAKEMORE, RICHARD.

A letter to the Right Honourable C. B. Bathurst on the subject of the Poor Laws. London, 1819.

BLANE DE VALSE, J.

Etat commercial de la France, au commencement du dix-neuvième siècle. Paris, 1803.

BLANE, E.

Les mystères de la boucherie, et de la viande à bon marché. Paris, 1857.

BLANC, ETIENNE, ET ALEXANDRE BAUME.

Code générale de la propriété industrielle littéraire et artistique, comprenant les législations de tous les pays, et les traités internationaux. Paris, 1854.

BLANC-GILLI, MATTHIEU.

Plan de révolution concernant les finances. Paris, 1789.

BLANC, JEAN JOSEPH LOUIS. This well-known Historical and Socialist writer was born on the 28th October, 1813, at Madrid, where his father was Inspector-General of Finances to King Joseph. He was educated at Rodez, in the department of Aveyren. In 1830 the revolution deprived his father of the means of supporting his family, and Louis Blanc was thrown upon his own exertions, and maintained himself by private tuition. While in this capacity he wrote for the journals. In 1834 he was appointed sub-editor, and in 1837 editor of the *Bons Sens*. In consequence of a difference of opinion with the proprietor as to whether railroads should be constructed by Government or private enterprise, he and his friends retired from the *Bons Sens*, and in 1839 he founded the *Revue du Progrès Social*, a democratic paper. He became more generally known to the public by his *Histoire de la Révolution*. But what made his name most remarkable was his scheme of Social reform, developed in his *Organisation du travail*, published in 1839. His views are explained under **SOCIALISM**. He was one of the provisional government after the revolution of 1848; and he was allowed to try some of his schemes at the *Ateliers Nationaux*, at the Luxembourg. He was alleged to be concerned in the insurrection of the 15th May, 1848, and the government instituted a prosecution against him, when he thought it prudent to leave the country, and came to London. Napoleon III, after the peace of Villa Franca, published a general amnesty, but Louis Blanc has not thought fit to avail himself of it.

Organisation du travail. Paris, 1839. Numerous editions since.

Le Socialisme, droit au travail. Paris, 1849.

Le catechisme des Socialistes. Paris, 1850.

BLANCARD, P. A merchant captain, born at Marseilles, the 21st April, 1741, and died at Aubagne the 16th March, 1826.

Manuel de Commerce des Indes Orientales et la Chine. Paris, 1803.

BLANC DE VOLX.

Etat commercial de la France, au commencement du dix-neuvième siècle, ou du commerce français, de ses erreurs, et des améliorations dont il est susceptible. Paris, 1803.

BLANQUI, JEROME ADOLPHE. Was born at Nice, in 1798. In 1825 he was elected

professor of history and industrial economy at the *école spéciale du commerce*, and in 1830 director of that institution. In 1833, he succeeded J. B. Say, as professor of Political Economy at the *Conservatoire des arts et métiers*. In 1838 he was elected a member of the Institute. He travelled very extensively in foreign countries to study their industry. From 1846 to 1848 he represented the Gironde in the Chamber of Deputies. He died recently.

M. Blanqui has published many works on economic science, but he is chiefly known for his *History of Political Economy*.

Voyage d'un Français en Angleterre. Paris, 1824.

Résumé de l'histoire du commerce et de l'industrie. Paris, 1826.

Voyage à Madrid en 1826. Paris, 1826.

Notice sur M. Huskisson et sur sa réforme économique. Paris, 1840.

La Corse en 1838. Paris, 1840.

L'Algérie en 1839. Paris, 1840.

Voyage en Bulgarie en 1841. Paris, 1842.

De la situation économique et morale de l'Espagne en 1846. Paris, 1846.

Du déboisement des montagnes. Paris, 1840.

Précis élémentaire d'économie politique, précédé d'une introduction historique, et suivi d'une biographie des économistes, d'un catalogue et d'un vocabulaire analytique. Paris, 1842.

Histoire de l'exposition des produits de l'industrie française en 1827. Paris, 1827.

Notice sur la vie et les ouvrages de J. B. Say. Paris, 1840.

Les classes ouvrières en France. Paris, 1848.

Histoire d'économie politique en Europe, depuis les anciens jusqu'à nos jours; suivie d'une bibliographie raisonnée de principaux ouvrages d'économie politique. Paris.

This is the work by which Blanqui is best known to the general public. It is one of the first connected accounts of the history of the science of Political Economy, and abounds with valuable details. But it is rather notices of the authors who have written on Political Economy, than a history of the science itself, at least according to our notion of what the history of Political Economy should be. The history of Political Economy should be the history of *ideas*, rather than of authors.

BLAQUIERE, EDWARD.

A statistical, commercial, and political description of Venezuela, Trinidad, &c., from the French of M. Lavaysse. London, 1820.

BLAXTON, JOHN.

The English usurer, or usury condemned by the most learned and famous divines of the Church of England. London, 1634.

BLAYNEY, FREDERICK.

A practical Treatise on Life Annuities. London, 1817.

A practical Treatise on Life Assurance. London, 1837.

Life Assurance Societies considered. London, 1838.

BLEAMIRE, WILLIAM.

Remarks on the Poor Laws, and the maintenance of the poor. London, 1800.

BLEIBTREN, E. C.

Politische Arithmetik. Anleitung zur Kenntnis und Uebung aller im Staatswesen vorkommenden Berechnungen. Heidelberg, 1845.

BLISS, HENRY.

The Colonial system. Statistics of the Trade, Industry, and resources of Canada, and other plantations in British America. London, 1833.

BLOCK, MAURICE. Born at Berlin the 18th of February, 1816. Has become a naturalized Frenchman, and is in the general statistical office of France. One of the contributors to the *Dictionnaire d'Economie Politique*.

Des charges de l'agriculture dans les diverses pays de l'Europe. Paris, 1851.

L'Espagne in 1850, tableau de ses progrès les plus récents. 1851.

BLODGET, SAMUEL.

Economica; or statistical manual for the United States of America. Washington, 1806.

BLOM, GUSTAVE PETER.

Das Königreich Norwegen, statistisch beschreiben. Leipsig, 1845.

BOASE, HENRY.

Remarks on the new doctrine concerning the supposed depreciation of our currency. London, 1811.

BOCCARDO, GEROLAMO. Professor of Political Economy in the University of Turin.

Trattato Teorico-practico di Economia Politica. Torino, 1853.

This is the most extensive treatise on Political Economy which has appeared in Italy in recent times. Professor Boccardo does not profess to make any new discoveries in Political Economy, but only to explain the science as generally understood. He is firmly convinced that it is to be classed along with the physical sciences, and to be studied in the same manner. The first book treats of the production of wealth; the second of the division of labor and exchange. The third of the theory of value and exchange. In this Boccardo maintains that the notion of value depends on, and is inseparable from, that of exchange. "Io so qual valore abbia una cosa quando so con quali e quante altre cose potrò comutarla."—"I know what value a thing has, when I know with what sort and for how many other things, I can exchange it." He also says, "Il secondo corollario già implicito nel precedente, si è che le nozione di valore nulla ha d'assoluto in se medesima. Il valore, noi lo diciamo, non è che un rapporto. Se l'uomo vivesse isolato e senza relazioni coi suoi simili, conoscerebbe bensì l'utilità, ma non il valore delle cose."—"The second corollary is also involved in the preceding, that the notion of value has nothing absolute in itself. Value, we say, is nothing but a relation. If a man lived by himself and without relations with other men, he might recognize the utility, but not the value of things." Boccardo thus ranks in the third school of Political Economy. In this chapter he rejects the law of Ricardo that cost of production regulates value. In the fourth chapter

he discusses the theory of Property. In the fifth chapter he treats of Capital, in which he gives as the definition of it, *Un prodotto risparmiato e destinato alla riproduzione*. "A product saved and destined to re-production." He fully adopts the opinion that intellectual capital is wealth, or as he calls it, *moral capital*. The sixth chapter treats of the Theory of Population. The second book treats of the Distribution of Wealth. In the first chapter he disputes the Ricardian theory of Rent. In the second he discusses the profits and interest of capital. In the third the wages of labor. In the fourth the general laws of the distribution of wealth. The third book treats of the Consumption of Wealth. In the first chapter he has adopted Say's notion that consumption implies the destruction of a value. The second treats of private consumption. The third of public consumption. This part ends with a discussion on free competition. This concludes what he calls the General Division. He next discusses the special divisions at greater length. The first of these is agriculture, the second is manufacturing industry, and the third is commercial industry. In this last part he treats of money and banks, and credit. In the latter subject he has been led into a fatal adoption of the doctrine of Cieszkowski, on the nature of credit. In his Dictionary he classes instruments of credit along with Bills of Lading and Dock Warrants—the very fallacy of Law. The third chapter treats of the modes of transport. He then discusses pauperism and charity, finance, taxation, and public credit.

Manuale di storia del commercio delle industrie, e dell'economia politica ad uso dalle scuole speciali secondarie. Torino, 1858.

This is an excellent manual on the subject, and contains much condensed information.

Dizionario della economia politica e del commercio, così teorico come pratico, utile non solo allo scienziato ed al pubblico amministratore, ma eziandio al commerciante, al banchiere, all'agricoltore, ed al capitalista. Torino, 1857, &c.

This is Professor Boccardo's greatest work. It is a very excellent and comprehensive work on the subject.

BOCER, HEINRICH. Advocate; Professor in the University of Tübingen.

De jure monetarum, tractatus novus. Tübingen, 1614.

An excellent treaty on money and coinage.

BODIN, JEAN. One of the most illustrious men whom France produced in the 16th century, and who, Hallam says, had only Aristotle and Machiavelli as his rivals in Political Philosophy, was born at Angers in 1530. He studied civil law at Toulouse, where he read lectures with great applause, intending to establish himself as professor there. He also composed a work which he dedicated to the citizens, to gain their good will. He, however, changed his mind, and joined the bar of Paris, but met with no great success. This induced him to turn to authorship, in which he gained a great reputation. He must have obtained considerable influence, for he persuaded Charles IX. that the landed proprietors of Normandy had usurped the crown rights, called the *droits des tiers et danger* over the forests of the province. At his instance a royal commission of

inquiry was appointed in 1570, to which he was named king's advocate, to recover possession of the crown rights. Bodin prepared proceedings against four hundred families, there being scarcely one who was not attacked. The whole province was of course in an uproar. The Parliament and the nobility sent deputations to the king, and at last persuaded him to abandon the attempt to recover the crown rights. Bodin strenuously opposed the registration of this edict, but the proprietors of Normandy prevailed.

In 1568 he published his valuable work on the coinage, to refute the fallacies of Malestroict, which is full of important details of prices.

In 1571 the Duc d'Alençon, the king's brother, who had a great esteem for him, made him secretary of his commands, one of the masters of requests of his palace, and chief justice of his province.

In 1574, Henry III. succeeded to the throne. He was very fond of the company of men of genius and learning. He sent for Bodin, and was greatly pleased with him, as he had remarkable conversational powers. The king imprisoned an author who had written a libel on Bodin, and forbade him to publish it.

On the 25th February, 1576, Bodin married Frances Trouillart, sister of the king's advocate in the bailiwick and presidential court of Laon, and was elected to represent the *tiers état* in the States of Blois. In this capacity he was a sturdy supporter of the rights of the people, and resisted an edict which was proposed to compel every one to adopt the Catholic faith. He maintained that it was a violation of their rights, and would certainly provoke a civil war. His opposition, however, was fruitless in that fanatical age. He also maintained that the king had no right to levy taxes without the consent of the people. In the same year he published his famous work, "The Republic." It is said that this brought him into serious danger of his life, and that he was condemned to be burnt as an avowed Atheist, because he maintained in it that liberty of conscience ought to be granted to dissenters. At all events, his boldness and courage lost him the favor of the king.

In 1579, the Duc d'Alençon was created Duc d'Anjou, and aspired to the hand of our virgin Queen. Leicester was in disgrace, and the Duke, thinking it a good opportunity to push his suit, suddenly presented himself at Greenwich, with scarcely an attendant. The Queen's vanity was tickled, and she seems to have given him encouragement to prosecute his suit. Negotiations were continued, and in 1582 matters had proceeded so far, that the marriage treaty was actually concluded between the commissioners of England and France. But the Queen left herself a loop-hole of escape. It was provided that the marriage should be solemnized six weeks after the ratification of the treaty, and the adjustment of certain other matters between the Queen and the Duke. The Queen took care that these other certain matters should not be adjusted, and perplexed everybody with her interminable caprice. To cut short this shilly-shallying, the Duke came over himself, with a splendid retinue. He took Bodin with him as his secretary. He was received with great state and princely hospitality. After being fooled for two months, he

went away, raving at the perfidy of islanders and women.

Bodin found that his Republic had been received with great favour in England. It had been translated into the Latin of the barbarous insulars, and lectures were read on it in London and Cambridge. Bodin translated it into civilised Latin, to present it in a proper dress. The Duke died in 1584, after an unsuccessful attempt in the Netherlands to destroy the liberty of a province, and Bodin was left without a protector. He seems, after this, to have discharged the duty of King's advocate at Laon, and died there of the plague in 1596. He was buried in the church of the Franciscans, in that city.

Bodin was the most liberal and enlightened political writer of the day. He was the advocate of that well-moderated and glorious constitutional liberty which is the peculiar blessing of this country. He maintained a firm and judicious mean between the tyranny of despotism and the licence of democracy; and as usual in such cases, he displeased the partisans of both extremes. He was a noble assertor of the rights of conscience, and sacrificed his own advancement to the fearless assertion of his opinions.

It is a melancholy instance, however, of the infirmity of human judgment, that this eminent person, so far in advance of his age in constitutional and religious liberty, was a firm believer in witchcraft and sorcery! Wierus, a physician of the Netherlands, had written a treatise *de Præstigiis* in 1564, combatting the horrible prejudice of the age, by which ugly old women were burnt as witches. Even he, however, did not venture to deny the fact of witchcraft. He only urged for them the plea that they were the devil's victims, and not his voluntary agents. In 1578 Bodin wrote a work *de la Demonomanie des Sorciers*, stoutly supporting the reality of witchcraft, and calling for judicial punishment on Wierus as a confederate of Satan!

M. Baudrillart, the colleague of M. Chevalier in the chair of Political Economy at the Collège de France, has recently published a work in two volumes, *Bodin et son temps*, for which he was awarded a prize by the Institute of France, in 1853. (BAUDELLART.)

Les six livres de la République. Paris, 1576.

The sixth book of the Republic contains discussions on the public revenues, taxation, and the coinage. Among many other valuable notices, he says, that the value of gold and silver had diminished 10 or 12 times since the discovery of the Peruvian mines. That the Chancellor of France, in the time of St. Louis, had for the charge of himself, his horses and servants, seven sous (or shillings) of Paris, allowed him a day, which was not equal to 8d. of his day. That Charles V. of France paid 31,000 crowns for the county of Auxerre, Philip I. paid 60,000 crowns for the duchy of Berri, and that many earldoms, baronies, and great seigneuries, had been sold, 120 years previously, for the twentieth part of what they brought in his day. That the revenues of France in 1449, in the days of Charles VI., were 40,000 pounds sterling, which was equal to 1,400,000 pounds sterling of his day. He also says, that by the advice of the Cardinal of Tournon, Francis I., in 1543, instituted a bank at Lyons, at which every man received 8 per

cent. for his money, in which multitudes of people in France, Germany, and Italy, invested their money. At his death Francis I. owed the bank 500,000 crowns. His son Henry, having wasted his father's treasure, paid 10, 12, and 16 per cent. in 1554, which was the same rate as Charles V. of Germany, and Henry VIII. of England, had borrowed at. He also gives many interesting financial details of other countries. In the third chapter he discusses the subject of money.

Discours sur le rehaussement et diminution des monnoyes, tant d'or que d'argent, et le moyen d'y remédier; et response aux paradoxes de Monsieur de Malestroict. Paris, 1578.

This tract is full of the most valuable details of the changes that had occurred in prices in France during the three preceding centuries. Malestroict, the master of accounts and of the mint, had asserted the extraordinary paradox that during three centuries prices had not risen in France. Bodin takes an immense variety of articles and shews that they had risen from five to ten fold in price during the three preceding centuries; he investigates the causes of this diminution in the value of the precious metals.

BODZ-RAYMOND, F. H.

Staatswesen und menschenbindung umfassende Betrachtungen. Berlin, 1837.

BECKH, AUGUSTE. This eminent philologist was born at Carlsruhe the 24th November, 1785. He was educated at Halle and Berlin. In 1805 he was appointed extraordinary professor of philology at Heidelberg, and in 1811 he was appointed professor of classical literature at Berlin.

Die Staatshaushaltung der Athener. Berlin, 1817.

This excellent work has been translated into English by Sir George Cornwall Lewis, Bart., M.P., under the title of "*The Public Economy of Athens*." It contains the fullest and best account we have of the Political Economy of the Athenians. The first book discusses the prices of commodities, the wages of labor, the rent of land and houses, and the profits of stock in Attica. The second discusses the financial administration and expenditure of Athens. The third details the ordinary revenues of Athens. The fourth treats of the extraordinary revenues, the valuation of property, the public loans, alterations in the coinage, and the financial expedients adopted by Grecian states in times of difficulty. A dissertation on the silver mines of Laurion, in Attica, is appended to the work.

Professor Böckh has also written a work on the weights, coins, and measures of Antiquity, called,

Metrolologische Untersuchungen über Gewichte, Münzfüsse und Masse des Alterthums in ihrem Zusammenhange. Berlin, 1838.

BECKMANN, JOHN. This eminent man was born at Hoya, in Hanover, in 1739. His father, a receiver of taxes, died when he was scarcely seven years old, and he was brought up by his mother, who gave him the best education that could be procured. He was destined at first for the church, but his turn for natural sciences prevailed, and he devoted himself to them, and especially to their application to economical purposes.

In 1762, Busching, the geographer, who was director of the Lutheran Academy at St. Petersburg, invited him to fill the chair of natural philosophy there. But Busching having resigned, Böckmann left it, and travelled through Sweden to study the working of the mines there. While there he formed a friendship with Linnaeus. In 1766, he was appointed professor at Göttingen, on the recommendation of Busching. He there formed the idea of trying to classify the different arts and branches of commerce. His lectures became extremely popular, and were attended by the most distinguished men in Germany.

Böckmann published many works on his branch of science, but the one he is best known by in this country, is his *History of Inventions*, in which he traces from the earliest antiquity the history of a great number of trades. He occupied his chair for 45 years, and acquired an immense reputation for his learning and personal character. He was elected into almost all the learned societies of Germany. He died the 3rd February, 1811. He left a great number of works, the names of which are given in Messrs. Guillaumin's Dictionary, thus—

Éléments d'économie rurale à l'usage des Allemands. Göttingen, 1769.

Introduction à la technologie ou à la connaissance des arts et métiers, des fabriques et manufactures, particulièrement de celles qui sont en rapport plus direct avec l'agriculture. Göttingen, 1777.

Opuscules relatifs à l'économie politique et domestique, à la technologie, à la police et à l'administration. 1779-90.

Fragments d'une histoire des découvertes dans les arts et les métiers. 1780-1805.

Introduction à la science du commerce, avec l'esquisse d'une bibliothèque de livres de commerce. Francfort, 1792.

Préparation à la connaissance des produits de l'industrie et d'autres objets qui entrent dans le commerce. 1793-1800.

BOESNIER DE L'ORME.

De l'esprit du gouvernement économique. Paris, 1775.

BOETLICHER, JACOB GOTTLIEB IZAAK.

Statistical tables of all the States of Europe. 1800.

BOICERVOISE, F.

Quelques réflexions au sujet du projet de loi relatif aux enfans trouvés. Paris, 1850.

BOISARD, JEAN. A judge in the *Cour des Monnaies*, died in Paris in 1705.

Traité des monnaies, de leur circonstances et dépendances. Paris, 1714.

BOISGUILLEBERT, PIERRE LE PESANT, SIEUR DE. This eminent man may be considered as the morning-star of modern economic science. Very little was known of his works till they were republished in Guillaumin's

Collection des principaux économistes, Vol. I. p. 163, to which M. Eugène Daire has prefixed a short biographical sketch, if indeed it can be called so, where the materials are so scanty.

The place, and the date of his birth, are both unknown. The only notices of his life are in

Saint Simon's memoirs. He was lieutenant-general of the bailiwick of Rouen, and had a brother in the Parliament of Normandy. His work, *Le détail de la France*, was published in 1697, and is the most authentic account of the manners and opinions, and the actual condition of the people of France, and the state of the finances in the reign of Louis XIV. The misery of the people, and the rapacity of the courtiers and statesmen, is exposed in very strong language.

This work, noticed below, is remarkable for its enlightened views. It advocates the suppression of all internal custom houses; absolute freedom of trade in grain, both within and without the kingdom, and only very moderate import duties, and the entire abolition of export duties. These views shew remarkable sagacity; only one of them could be carried out by Turgot some three quarters of a century later; the others have only been, in very recent years indeed, adopted in England, and seem to have very little chance in France for many a long year to come.

This book, so far in advance of its age, attracted very little notice. But not discouraged, he returned to the subject, and in 1707 published the *Factum de France*, which gained more attention from Chamillart, the successor of Pontchartrain. But about the same time Vauban had published his *Dime Royale*, with very much the same views, and this excited great indignation in the mind of the government. Boisguillebert was banished to Auvergne, but soon released, and his work was condemned by a royal edict in 1707. He, however, firmly maintained his opinions. He is supposed to have died about 1714, at Rouen.

Le détail de la France, la cause de la diminution de ses biens, et la facilité du remède, en fournissant en un mois tout l'argent dont le roi a besoin, et enrichissant tout le monde. 1697.

This work details with great minuteness the miseries caused by the unjust method of levying the taxes in France. It explains the evil effects of the obstructions to trade by the internal custom-houses. He shews that the obstacles imposed on the exportation of corn tended to produce a famine, and throw land out of cultivation. He earnestly protests against the dogma of the mercantile system that money is wealth, and almost goes into the opposite extreme, that money is only a sign of wealth; which is an error equally fatal in its consequences, and which Turgot was one of the first to set right. Boisguillebert then maintains (Part III., Chap. vi.) that bad or good government is of as much consequence to the wealth of a country, as the fertility of the soil, or the nature of the climate. He says that the laws of economic science are never violated with impunity, and gives instances of the evil effects of ignorant legislation on this subject. He says that the financiers seem to treat France as an enemy's country, which they do all in their power to ruin.

Factum de la France. 1707.

Maintains the same views as the preceding. In Chap. IV., he discusses the nature of riches, which, he says, consists in the enjoyments of life. He explains the nature and function of money, and shews that paper, parchment, or simple credit is capable of performing its functions. He says that freedom of trade would greatly conduce

to peace. He maintains that there is a *solidarité*, or community of interest, not only between man and man, and province and province of the same state, but also between every state in the world. How far in advance of the wretched theories of the mercantile system, which maintained that one state throve by the miseries of its neighbours! How infinitely in advance of its age!

Traité de la nature, culture, commerce, et intérêt des grains, tant par rapport au public, qu'à toutes les conditions d'un état.

Advocates an entire freedom of trade in corn, such as was before 1650, and to leave all economical laws to the action of nature.

Dissertation sur la nature des richesses, de l'argent, et des tributs, ou l'on découvre la fausse idée qui règne dans le monde à l'égard de ces trois articles.

This is the reaction against the mercantile system, which placed wealth exclusively in the precious metals, and, like most reactions, it goes a little too far, for it goes to prove that money is *nothing*, which finds its logical conclusion in LAWISM. Turgot hit the exact mean between these two opposing theories. Nevertheless he sees very clearly the true function of money is to preserve the right of demanding something, he shews what other things may be substituted for it, among others *credit*, and describes the custom of the fairs at Lyons, where a system prevailed exactly on the plan of our clearing house, (CLEARING HOUSE), when all debts were balanced in paper, and not a single sou of money was required to settle transactions amounting to 80,000,000. This shews that he well understood that money and instruments of credit are homogeneous. He also shews that in commerce both sides must necessarily gain.

No one can read these works of Boisguillebert without admiration of the sagacity they display in that benighted era, nor can we refuse to acknowledge him as the true precursor of that illustrious line of men who have conferred so much benefit on the world. He is a brilliant example of an author whose views are the paradoxes of his own generation, and the acknowledged truths of succeeding ones.

BOISLANDREY, LOUIS DE. A merchant at Versailles, was born in 1749. He was a deputy to the *tiers état* in 1789. He devoted his attention specially to finances, and warmly opposed the creation of two milliards of Assignats, which was proposed by Mirabeau in September, 1790. His views, however, were rejected, and he retired from public life at the end of the session. He died at Paris in November, 1834.

Considérations sur le discrédit des assignats, présentées à l'assemblée nationale. Paris, 1791.

Examen des principes les plus favorables aux progrès de l'agriculture, des manufactures, et du commerce de France. Paris, 1815.

Des impôts, et des charges des peuples en France. Paris, 1824.

BOISSY - D'ANGLAS, FRANÇOIS. LE COMTE-DE, was born at Saint Jean Chambre, the 8th December, 1766. He distinguished himself by his courage on the invasion of the Convention by the mob in May, 1795. He was a voluminous author, and died in Paris, the 20th October, 1826.

Observations sur l'ouvrage de M. de Calonne,

intitulé, *De l'état présent et à venir de la France*. Paris, 1791.

BOLTON, ROBERT. Puritan Divine.

A short and private discourse between Mr. Bolton and one M. S. concerning usury. London, 1637.

BERNARDO, GIOVANNI MARIA. Count.

Le ricchezza dell' agricoltura. Trevigi, 1654.

BONA Y URETRA, JUAN ELOY DE.

Clave de los economistas, en el poder y en la oposizion, discurso económico-político. Madrid, 1850.

BONCERF, PAUL. Born, about 1745, at Chasaulx, in Franche-Comté. An advocate before the parliament of Besançon. His merit procured him an appointment in the office of Turgot. While in this office he published his work on feudal rights, in 1776, which created a vehement uproar, and, upon the motion of the Prince de Conti, was ordered by the parliament to be burnt, and the author was about to be prosecuted, when the king forbade them to interfere in the matter. This prosecution, of course, gained for Boncerf and his work fame and popularity; it was translated into several languages. It served as the basis of the decrees of the constituent assembly in 1789. He died in 1794.

Les inconvénients des droits féodaux. Paris, 1776.

Mémoire sur cette question; Quelles sont les causes les plus ordinaires de l'émigration des gens de la campagne vers les grands villes, et quelles seraient les moyens d'y remédier? Paris, 1784.

De la nécessité d'occuper avantageusement tous les ouvriers. Paris, 1791.

De la plus importante et la plus pressante affaire, ou la nécessité de restaurer l'agriculture, et le commerce. Paris, 1790.

BONDE, KNUT. Baron.

La Suede et son commerce. Paris, 1852.
Translated from the Swedish.

BONJEAN, L. B. Représentant.

Socialisme et sens commune. Paris, 1849.

BONNARD, ARTHUR DE.

Organisation du travail. Paris, 1845.

BONNARDEL, JEAN.

Projet financier, ayant pour but de procurer au gouvernement un impôt, direct et volontaire, de 600 millions par an, et à l'agriculture, et au commerce, vingt milliards à trois pour cent. par an. Lyons, 1840.

BONNAY, FRANÇOIS DE. Marquis.

Rapport fait au nom du Comité d'agriculture et de commerce, sur l'uniformité à établir dans les poids et mesures. Paris, 1789.

BONNEMERE, EUGENE.

Histoire de l'association agricole. Paris, 1850.
Histoire des paysans. Paris, 1856.

BONNEVILLE, ALPHONSE. Assayer to the Bank of France.

Encyclopédie monétaire, ou nouveau traité des monnaies d'or et d'argent, en circulation chez les diverses peuples du monde. Paris, 1849.

BONNEVILLE, PIERRE FREDERIC.

Traité des monnaies d'or et d'argent, qui circulent chez les différens peuples. Paris, 1806.

BONNIN, F.

Principes de l'ordre sociale. Paris, 1849.

BONNOT DE CONDILLAC, ETIENNE.

Le commerce et le gouvernement considéré relativement l'un à l'autre. Amsterdam, 1772.

BONOMO, ANDREA GUISEPPE DE.

Sopra le monete de' vescovi di Trieste. Trieste, 1788.

BONVALET-DESBROSSES. Formerly treasurer of the navy in France.

Richesses et ressources de la France, faisant suite à l'ouvrage intitulé: Moyen de simplifier la perception des deniers royaux. Paris, 1789.

Mémoire au corps législatif (chiefly in reference to a Caisse de Commerce). Paris, 1796.

BONIRICINI, ALBERTO.

Dubbi e controversie in affari di commercio, ultimamenti agitati e discisi delle primarie Corti e Tribunali di Francia, e di vari parti d'Italia, che hanno una giurisprudenza commerciale uniforme. Napoli, 1836.

BOOK OF COMMERCE, *The, by sea and land; to which are added a history of Commerce and a chronological table, &c.* Boston, U.S., 1834.

BOOTH, DAVID. Accountant.

A letter to the Rev. T. R. Malthus, being an answer to the criticism on Mr. Godwin's Work on Population. London, 1823.

BOOTH, GEORGE.

Observations on lowering the rent of land, and on the Corn Laws. Liverpool, 1814.

Observations on Paper Currency, Bank of England notes, and on the principles of coinage, and a metallic circulating medium. Liverpool, 1815.

BOOTH, HENRY, of Liverpool.

The rationale of the Currency Question, or the plea of the merchant and shareholder for an improved system of National Banking. London, 1847.

Master and Man, a dialogue, in which are discussed some of the important questions affecting the social condition of the industrious classes. London, 1853.

BOOTH, J. P.

Gold a delusion. Dear food, high prices, and high discounts accounted for, with a proposed remedy, by changing the currency. London, 1857.

BORBSTAEDT, A.

Allgemeine geographische und statistische herhaltenisse in graphische darstellung. Berlin, 1846.

BORD, MURET DE. Député.

De la Banque de France, de la crise monétaire. Paris, 1847.

BORIE, VICTOR.

Travailleurs et Propriétaires. Paris, 1848.

BORNITIUS, JACOBUS.

Ærarium; sive Tractatus Politicus de Ærario

sacro, civili, militari, communi, et sacratori, x libris comprehensis. Frankfort, 1612.

De nummis in republicâ percutiendis, et conservandis. Hanovia, 1608.

Tractatus politicus de rerum sufficientiâ in republicâ et civitate procurandâ. Frankfort, 1625.

BORREGO, ANDRE.

Principios de economia politica. Madrid, 1844.

BORRELLI, JEAN ALEXIS.

Rêves sur nos finances; Maux à détruire, améliorations à faire. Marseille, 1847.

BOSANQUET, CHARLES.

A Letter to W. Manning, Esq. M.P., on the causes of the rapid and progressive depreciation of West India Property. London, 1807.

Thoughts on the Value to Great Britain of Commerce in general, and on the value and importance of the Colonial Trade in particular. London, 1808.

Practical observations on the Report of the Bullion Committee. London, 1810.

This pamphlet is only remarkable as having called forth a most able and crushing reply from Ricardo. Mr. Bosanquet endeavoured to prove by figures that the principles of the Bullion Report were erroneous. Ricardo replied, taking the whole of Mr. Bosanquet's figures to pieces, and shewing, that when they were rectified, they proved most satisfactorily the truth of the Report. It is also curious as having proposed for the monetary unit, the pound sterling, the interest of £33 6s. 8d. of public stock (RICARDO).

BOSANQUET, JAMES WHATMAN.

Letters to the Right Hon. G. C. Lewis, on the Bank Charter Act of 1844. London, 1857.

Metallic, paper, and credit currency, and the means of regulating their quantity and value. London, 1842.

BOSC, JOSEPH ANTOINE. A younger brother of the naturalist of the same name, was born at Aprey in 1764. He was appointed inspector of mines and manufactures in Burgundy, but the office was abolished by the division of France into departments. He afterwards filled several public offices, and died in Besançon in 1837.

BOSELLINI, CARLO.

Nuovo esame delle sorgenti della privata e pubblica ricchezza. Modena, 1816-17.

BOSWORTH, JOSEPH.

The necessity of the anti-pauper system shewn by an example of the oppression and misery produced by the allowance system. London, 1829.

BOTELHO, SEBASTIAO XAVIER.

Memoria estatistica sobre os dominios Portuguezes na Africa Oriental. Lisboa, 1835.

Segunda parte da memoria estatistica, &c. Lisboa, 1837.

BOTERO, GIOVANNI. Born at Berne, in Piedmont, in 1540. He was secretary to St. Charles Borromeo, and, after his death, was sent as envoy to Paris. He was afterwards tutor to the children of Charles Emmanuel, Duke of Savoy, and died in 1617.

Delle cause della grandezza della città. Rome, 1588.

Della ragione di stati. Venice, 1589.

Relazioni universali. Rome, 1592.

BOTTIN, LEONARDUS, F.P.A.

Specimen inaugurale æconomico-politicum de Frumentariâ Mercaturâ. Leodii, 1829.

BOTTIN, SEBASTIEN.

Statistique annuelle de l'industrie. Paris, 1835.

BOUCHAUD, MATHIEU ANTOINE. Born at Paris in 1719. He was a member of the Institute, and professor of law. He died in 1814.

De l'impôt du vingtième sur les successions, et de l'impôt sur les marchandises chez les Romains. Paris, 1766.

Théorie des traités de commerce entre les nations. Paris, 1777.

BOUCHER, P. B. Professor of commercial law.

Le consulat de la mer, ou Pandectes du droit commercial et maritime. Paris, 1808.

Histoire d'usure chez les anciens peuples. Paris, 1809.

Traité complet, théorique et pratique de tous les papiers de crédit, et de commerce. Paris, 1808.

BOUCHERETT, AYSOGGHE.

A few observations on corn, currency, &c. London, 1840.

BOUCHET, HENRI.

Solution politique, industrielle, et sociale. Appel au peuple, organisation de crédit. Paris, 1805.

BOUCHON-DUBOURNIAL, HENRI. Engineer to the office of roads and bridges, and translator of Cervantes. Born at Toul in 1749, and died at Paris in 1828.

Considérations sur les finances. Paris, 1788.

Considérations sur les finances, sur la Dette publique, sur la nécessité et les moyens de créer un milliard en papier-monnaie, aussi solide et plus précieux que l'or, &c. Paris, 1814.

BOUET-WILLAUMEZ, E.

Commerce de la traite des noirs. Paris, 1818.

BOUGAINVILLE, J. P. E.E. Brother of the celebrated navigator, was born at Paris the 1st of December, 1722. He became Secretary to the Academy of Inscriptions and Belles Lettres. He died 22nd of June, 1763.

Discours sur les métropoles grecques, tiré des mémoires de l'Académie, des inscriptions et belles lettres. Paris, 1785.

BOULAINVILLIERS, HENRI DE, L.M. COMTE. Born the 11th of October, 1658, at St. Saire, in Normandy. He was an eminent writer of his day, but from being a very ardent admirer of the feudal system his works are not much thought of now. He is mentioned by Montesquieu (*Esprit des Loix*, Liv. xxx. c. 10. After a literary career he died at Paris in 1722.

Mémoires présentés au duc d'Orléans, régent de France, contenant les moyens de rendre ce royaume très puissant, et d'augmenter considérablement les revenus du roi et du peuple. La Haye, 1727.

Etat de la France, dans lequel on voit tout ce qui regarde le gouvernement ecclésiastique, le militaire, la justice, les finances, le commerce, les manufactures, le nombre des habitans, &c. London, 1727.

BOULENGER, JULES CESAR.

De tributis ac vectigalibus populi Romani liber. Tübingen, 1618.

BOURBON-LEBLANC.

Introduction à la science de l'économie politique, et de la statistique générale. Paris, 1801.

BOURDON, FRANCIS LOUIS.

Opinions sur les finances. Paris, 1795.

BOUREAU-DESLANDRES, ANDRE FRANÇOIS.

An essay on maritime power and commerce, particularly those of France. London, 1743.

BOURGOIS. Capitaine de frégate.

Rapport à M. Ducos, ministre de la marine, sur la navigation commerciale à vapeur de l'Angleterre. Paris, 1854.

BOURETTE.

De la hiérarchie commerciale. Versailles, 1848.

BOUTARD, CHARLES. Formerly member of the Tribunal and Chamber of Commerce of Tours.

Libre monétisation de la propriété. Paris, 1854.

BOUTEROUE, CLAUDE.

Recherches curieuses des monnoyes de France, depuis le commencement de la monarchie. Paris, 1666.

BOUTOWSKI. A Russian economist, born at St. Petersburg in 1814. A Councillor of State, and member of several societies in that city.

An essay on National Wealth and the principles of Political Economy, (In Russian.) St. Petersburg, 1847.

BOUVARD, A.

Notice sur la mesure de la vie humaine. Paris, 1849.

BOVER DI ROSELLO, J. MARIA.

Del origen, progreso y actual estado de la Agricultura, Artes, y Comercio, en la Isle de Mallorca. Palma, 1841.

BOWEN, FRANCIS.

The principles of Political Economy applied to the condition, the resources, and the institutions of the American people. Boston, U.S., 1856.

BOWRING, EDGAR ALFRED. Son of Sir

John Bowring. Has translated the poems of Goethe, Schiller, and Heine. Librarian to the Board of Trade, and Secretary to the Royal Commission for the Exhibition of 1851.

Free trade, and its so called Sophisms. London, 1850.

During the warm economical discussions following Sir Robert Peel's great reforms, a "barrister," generally supposed to be Mr. Justice Byles, published a little volume, entitled the "*Sophisms of Free Trade*," somewhat after the manner of Bastiat's *Sophismes économiques*. Mr. Bowring's work is a reply to it.

BOWRING, SIR JOHN, LL.D. Was born at Exeter, the 17th October, 1792. He was early

distinguished for his acquirements in the languages of Eastern Europe, and he published metrical versions from Russian, Polish, Servian, and Magyar poems, besides some original pieces. He was an intimate friend of Bentham, who appointed him one of his executors; and he, in conjunction with Mr. John Hill Burton, edited the collection of Bentham's works. In 1825 he became editor of the *Westminster Review*, and contributed largely to it. He has been several times employed by Government to make reports on the commerce of foreign countries. They relate to France, Switzerland, Tuscany, Syria, and the German customs union. He was in Parliament from 1835 to 1837, and again from 1841 to 1849, when he was appointed Consul at Hong Kong. He returned to England in 1853, and in the following year was knighted, and appointed Governor of Hong Kong. During this appointment he paid a visit of state to the King of Siam.

First report on the commercial relations between France and England. 1834.

Second report. 1835.

Report on the commerce and manufactures of Switzerland. 1836.

Report on the statistics of Tuscany, Lucca, the Pontifical, and the Lombardo-Venetian States. 1838.

Report on Egypt and Candia. 1840.

Report on Commercial Statistics of Syria. 1840.

The decimal system in numbers, coins, and accounts, especially with reference to the decimalisation of the Currency and accountancy of the United Kingdom.

BOYD, WALTER. An eminent merchant of London.

A letter to the Right Honorable W. Pitt on the influence of the stoppage of issues in specie at the Bank of England, on the prices of provisions and other commodities. London, 1801.

In 1800 and 1801 there was a great scarcity of coin, and the prices of all kinds of provisions were very high. There was a great demand for specie for exportation, and the market price of gold bullion rose to £4 5s. per ounce, and silver bullion rose to 5s. 7d. per ounce. The exchange with Hamburg fell to 14 per cent. below par. Under these circumstances Mr. Boyd was one of the first to shew, in the above pamphlet, that these were, in fact, proofs of the depreciation of the paper currency, and that the difference between the market and the mint price of gold bullion was the proof and the measure of the depreciation. Lord King also published a treatise to prove the same doctrine (King, Lord). After a short time this difference subsided, till 1809, when exactly the same phenomena recurred, upon which occasion Ricardo first appeared as an author, and gave rise to the appointment of the Bullion Committee. (BULLION REPORT.)

Observations on Lord Grenville's essay on the sinking fund. London, 1828.

Reflections on the financial system of Great Britain. London, 1828.

BOYETET. A counsellor of State.

Recueil des mémoires relatif au traité de commerce avec l'Angleterre. Versailles, 1789.

BOYNE, WILLIAM.

Tokens issued in the 17th century in England, Wales, and Ireland, by corporations, merchants, tradesmen, &c. London, 1856.

Tokens issued in the 17th, 18th, and 19th centuries in Yorkshire. London, 1858.

BRADNEY, JOSEPH.

Reflections on the Report of the Bullion Committee. Bath, 1810.

BRAMSTON, THOMAS GARDINER.

A practical inquiry into the nature and extent of the present agricultural distress, and the means of relieving it. London, 1822.

The principle of the Corn Laws vindicated. London, 1827.

BRANCAS LAURAQUAIS, L.L.G. DE. DUC DE BRANCAS.

Mémoire sur la campagne des Indes, précédé d'un discours sur le commerce en général. Paris, 1769.

BRANCH, JOHN. of Eye.

The crisis of England; her danger and remedy: a statement of financial economy: also remarks on the Currency. Eye, 1834.

Political Economy; a reform of the monetary system preparatory to the complete development of the principles of Free Trade and Commerce. London, 1851.

A national system of finance, an adjustment of prosperity between the landowners and the fundholders. London, 1854.

BRAND, CHARLES.

A treatise on Assurances and Annuities on Lives. London, 1775.

BRAND, JOHN. Rector of St. George's, Southwark.

A determination of the average depression of the price of wheat in war, below that of the preceding peace, and of the readvance in the following, with remarks on their greater variations in that period. London, 1800.

Observations on some of the probable effects of Mr. Gilbert's Bill; to which are added, remarks deduced from Dr. Price's account of the National Debt. London, 1776.

BRAND, THOMAS. LORD DACRE.

A letter to W. Wilshire, Esq., on the subject of the Corn Laws. London, 1814.

BRAUN, TVETKE.

Norges Statistik. Christiania, 1848.

BRAUMER, FRANZ AUGUST.

Von der Robot und deren Ablösung für den böhmischer und mährischen Landman. Prag, 1848.

BRAY, CHARLES.

An outline of the various Social Systems and Communities. London, 1844.

An essay on the union of agriculture and manufactures, and upon the organization of industry. London, 1844.

BRAY, EUGENE DE. LE CHEVALIER.

Born at Amiens in June, 1779.

Essai sur la force, la puissance, et la richesse nationale. Paris, 1814.

Des moyens d'étendre le commerce au long cours, et d'assurer sa prospérité. Paris, 1825.

BRAYER, JEAN BAPTISTE LEWIS.

Statistique du département de l'Aisne. Laon, 1825.

BREAKBREAD, BARNABY. A pseudonym.

Protection to British industry considered. Warwick, 1850.

BREBISSE, ALPHONSE DE.

Statistique de l'arrondissement de Falaise. 1826.

BREDECZKY, SAMUEL.

Historisch Statistischer Beytrag zum Deutschen Colonial wesen in Europa. Brün, 1812.

BREDERLOW, GOSWIN VON. Baron.

Geshichte des Handels und der gewerblichen Kultur der Oestsee Reiche ein Mittelalter. Berlin, 1820.

BREEN, HENRY H.

St. Lucia; historical, statistical, and descriptive. London, 1844.

BRENAN, JUSTIN.

The National debt and public funds simplified for general comprehension. London, 1849.

BRENNER, ELIAS.

Thesaurus nummorum Sueo-Gothicorum. Holmiæ, 1731.

BRERETON, C. D.

An inquiry into the workhouse system, and the law of maintenance in agricultural districts. Norwich, 1822.

Observations on the administration of the Poor Laws in agricultural districts. Norwich, 1824.

A practical inquiry into the number, means of employment, and wages of agricultural laborers. Norwich, 1824.

The subordinate magistracy, and Parish system, considered in connexion with the causes and remedies of modern pauperism. Norwich, 1827.

BREREWOOD, HOWARD.

De ponderibus, et pretiis veterum nummorum, eorumque cum recentioribus collatione. London, 1614.

BRESSON, JACQUES.

Histoire financière de la France, depuis l'origine de la monarchie, jusqu'à l'année, 1828. Third Edit. Paris, 1857.

Des fonds publics français et étrangers, et des opérations de la Bourse de Paris. Paris, 1843.

Liberté du taux de l'intérêt, ou abolition des lois sur l'usure, avec des réflexions sur la Banque de France. Paris, 1848.

BREULIER, ADOLPHE. Advocate in the Imperial Court of Paris.

Du droit de perpétuité de la propriété intellectuelle. Paris, 1855.

BREWER, GEORGE.

The rights of the poor considered, with the cause and effects of monopoly. London, 1800.

BREWSTER, SIR FRANCIS.

Essays on trade and navigation. London, 1695.
New Essays on Trade. London, 1702.

BRIANCOURT, MATHIEU.

L'organisation du travail et l'association. Paris, 1815.

BRIAUNE,

Du prix des grains, du libre échange et des réserves. Paris, 1857.

BRIAVOINNE.

De l'industrie en Belgique. Sa situation actuelle, cause de décadence et prospérité. Brussels, 1839.

BRICKWOOD, JOHN.

Facts relative to the Corn Laws. London, 1815.
A plan for redeeming the new four per cents. London, 1830.

BRICOGNE, N. Master of Requests to the Council of State. Died in 1820.

Situation des Finances. Paris, 1819.

BRIEL, ADOLPHE.

Etudes économiques sur les motifs de la suppression de la chaire de l'économie politique au Collège de France. Paris, 1848.

BRIERE, ALEXANDRE.

De l'organisation du travail par les sociétés en commandites. Paris, 1848.

BRIGANTI, FILIPPO. Born at Gallipoli, in Naples, in 1724, died in 1804.

Esame economico del sistema civile, 1780.

BRIGGS, JEREMIAH.

The wages of the people. Derby. 1858.

BRIGGS, JOHN. General.

The cotton trade of India, London, 1840.
The present land-tax of India considered as a measure of Finance. London, 1830.

BRIGHT, HENRY, S.

Statistics of the corn trade, 1828—1853. London, 1854.

BRILLAT-SAVARIN, ANTHELME. Born

in 1747. A Judge of the Court of Cassation. Died at Paris in 1826.

Vues et projets d'économie politique. Paris, 1801.

BRILLEMONT.

Adresse aux 83 départements (on the banking system of J. A. de Ferrières). Paris, 1791.

BRINCARD. Auditor to the council of state.

Le nouveau et l'ancien droit du timbre. Paris, 1856.

BRINDLEY, JOHN.

A report of the public discussion on Socialism, held in the theatre, Sheffield. Sheffield, 1840.

BRION DE LA TOUR, LOUIS.

Tableau de la population de la France, &c., &c. Paris, 1789.

BRISBANE, ALBERT.

Social destiny of man, or association and re-organisation of industry. Philadelphia, 1840.

BRISCOE, JOHN. In the year 1694 there were multitudes of schemes for Banks before the public. One succeeded,—the Bank of England. A knot of persons, among whom the most conspicuous were Asgill (ASGILL) and Briscoe, were very active in getting up an opposition scheme, for the purpose of basing a paper currency on the security of land. The plan which Law took up afterwards. These persons actually got Parliament to pass a Bill for this Land Bank, in 1696; but, fortunately for the country, and all concerned in it, the project totally failed. We have not been able to discover any particulars of this Mr. Briscoe, who was one of the most active promoters of this Bank. (LAND BANK.)

An abstract of the discourse on the late funds of the million-acts, lottery Acts, and Bank of England. London, 1694.

An explanatory dialogue of a late treatise, intitled "A discourse on the late funds of the million-acts," &c. London, 1694.

An account of the National Land Bank. London, 1695.

An account of the value of the estates in the several counties, subscribed towards the fund for a national Land Bank, from 11th June to 13th July, 1695. London, 1695.

The freehold estates of England, or England itself the best fund or security. London, 1695.

Reply to a pamphlet in answer to the above. London, 1695.

Proposals for raising money for the National Land Bank. London, 1695.

To the honorable the knights, citizens, and burgesses in Parliament assembled. Proposals for regulating the coin of the kingdom. London, 1695.

To the knights, citizens, and burgesses in Parliament, a short scheme or proposal for a National Land Bank. London, 1695.

To the Lords spiritual and temporal, and Commons, in Parliament assembled. (An address respecting a National Land Bank.) London, 1695.

An answer to a late pamphlet, entitled Reasons offered against the intended project commonly called the National Land Bank. London, 1696.

Defence of Dr. H. Chamberlen's Bank, or office of credit. London, 1696.

BRISOT, JEAN PIERRE. De Warville, the celebrated Girondin; executed in 1794.

Discours sur la rareté du numéraire et sur les moyens d'y remédier. Paris, 1790.

The commerce of America with Europe. Translated from the French. New York, 1795.

BRISTED, JOHN, of the Inner Temple.

Hints on the National Bankruptcy of Great Britain, and on her resources to maintain the present contest with France. New York, 1809.

America and her resources, or a view of the agricultural, commercial, manufacturing, financial, political capacity and character of the American people. London, 1818.

BRITTANICUS. Pseudonym.

Corn Laws defended, or agriculture our first interest, and the mainstay of trade and commerce. Leeds, 1844.

BRITTANICUS. Pseudonym,

A Treatise on the Currency; in which the principle of uniformity is advocated. Edinburgh, 1826.

BRITTEN, PASHLEY.

Historical and Statistical view of the progress of British commerce from the Norman Conquest to 1851. London, 1852.

BRIZI, ORESTE.

Quadro storico-statistico della serenissima repubblica di San Marino. Firenze, 1842.

BROADHURST, JOHN.

Reasons for not repealing the Corn Laws. London, 1839.

Political Economy. London, 1842.

BROCKETT, WILLIAM HENRY.

The tradesman's tokens (of the 17th century) of Derbyshire. Gateshead, 1857.

BROGGIA, CARLO ANTONIO. An eminent Neapolitan merchant, who published, in 1743, two works on taxation and money. He was highly extolled in his day; but, from the abstract of his doctrines given by Pecchio, we should not form any very high opinion of them. He was an advocate of the mercantile system. Notwithstanding that he demeaned himself by great sycophancy to those in power, he published a treatise in 1754, which gave offence to the ministers. He was exiled to Palermo, where he remained several years. He returned to Naples, and died.

Trattato di Tributi. Napoli, 1743.

Trattato delle monete, considerate ne' rapporti di legitima riduzione, di circolazione, e di deposito. Napoli, 1743.

BROGNIART.

Mémoire sur les resultats probable des tontines. Paris, 1856.

BROIS DE BEAUMETZ, BON ALBERT.

Opinion sur les l'Assignats de 5 livres. Paris, 1791.

Réflexions sur la partie du projet d'organisation du trésor public. Paris, 1791.

BROOKE, WILLIAM, F.S.A.

The true causes of our present distress for provisions; with a plan for the future prevention of so great a calamity. London, 1800.

BROOKES, S.

Thoughts on the Poor Laws, with a plan for reducing the Poor-rates, preparatory to their abolition. London, 1822.

BROOKS, THOMAS, Accountant.

An authentic account of all the different coins by which accounts in the East Indies are kept. London, 1763.

An authentic account of the weights and measures,

&c., made use of at the several ports in the East Indies. London, 1752.

BROOME, RALPH.

Observations on Mr. Paine's Decline and Fall of the English System of Finance. London, 1796.

BROUCKERE, CHARLES DE. Born 18th January, 1796, at Bruges. Served in the army from 1815 to 1820, and was a deputy to the States General in 1826. In 1830 he was a member of the congress, then of the chamber of representatives, and successively minister of finance, of the interior, and of war. He afterwards became professor of mathematics and political economy. He has also filled many other offices, and has written many articles in periodicals on economical subjects. He has also published—

Lettre à M. le Comte J. Arrivabene sur la condition des travailleurs. Paris, 1845.

Principes généraux d'économie politique. Brussels, 1851.

BROUGHAM AND VAUX. LORD. The most illustrious of the friends and disciples of Bentham, and to whom, beyond all comparison, the immortal honor is due, of having led the way in the great practical reforms which are the realisation of his ideas, was born in St. Andrew's-Square, Edinburgh, on the 19th September, 1779. To attempt the biography of one who will fill a greater space in the eye of posterity than any man of this age, in the narrow limits to which we are necessarily confined, would be manifestly absurd. To detail his services to Political Economy would be simply to narrate the history of those great economical discussions which, since the great debates on the Currency question, in 1811, have formed so conspicuous a portion of our Parliamentary History. In all of these the name of Brougham will always be found battling in the foremost ranks of enlightenment and truth. He was Attorney-General to Queen Caroline for many years; and Lord Chancellor of England from 1830 to 1834. In 1825 the University of Glasgow honored him by electing him Lord Rector, against Sir Walter Scott, by the casting vote of Sir James Mackintosh. In 1859 the reformed University of Edinburgh honored themselves by electing him their first Chancellor.

Besides innumerable speeches and articles on economical subjects, Lord Brougham published

An inquiry into the Colonial policy of the European powers. Edinburgh, 1803.

BROWNE, LEWIS. Inspector in the Belgian Post Office.

La réforme postale en Angleterre; examen de ses résultats depuis son origine, jusqu'à ce jour. Brussels, 1857.

BROWN, Dr., of Dolphington.

An essay on the new project for a land mint, proposing a proper and practicable scheme and expedient, &c. Edinburgh, 1705.

This is one of the numerous pamphlets which were issued at this period, advocating a paper currency, based upon land. Law proposed that notes should be created to the amount of 20 years, purchase, Dr. Brown to the amount of 5 years.

The circumstances of Scotland considered with

respect to the present scarcity of money. Edinburgh, 1705.

Dr. Brown attributes the great scarcity of money, in Scotland, to the issue of £1 notes by the Bank of Scotland. He speaks of them as having been issued for a considerable time. He advocates a land paper currency.

BROWN, HENRY. Artisan.

The cotton fields and cotton factories; being a familiar view of the rise and progress of the cotton manufacture. London, 1840.

BROWN, JOHN BAILEY.

The evils of our present Joint Stock Banking system considered, with a few practical and practicable suggestions for its improvement. London, 1852.

BROWN, R. Shipowner of Sunderland.

An argument in defence of the principle of the Navigation Laws. Bishopwearmouth, 1847.

BROWN, ROBERT. Farmer at Merkle.

General view of the agriculture of the West Riding of Yorkshire. London, 1799.

BROWN, ROBERT, of Hamilton.

Flax, its culture and preparation in Scotland, Ireland, and Flanders. Glasgow, 1851.

BROWN, ROBERT, of Inverness.

Strictures and Remarks on the Earl of Selkirk's observations on the present state of the Highlands of Scotland, with a view of the causes and probable consequences of emigration. Edinburgh, 1806.

Letters on the distressed state of agriculturists. Edinburgh, 1816.

BROWN, THOMAS, of Luton.

General view of the agriculture of the County of Derby. London, 1794.

BROWN, THOMAS JAMES.

Statistical Survey of the Corn Trade from 1697 to 1851. London, 1851.

BROWN, WILLIAM.

Mercator; or, Commerce retrieved. London, 1718.

BROWN, WILLIAM, M.P. for South Lancashire. *Statement of the different plans of decimal accounts and coinage.* London, 1854.

Decimal coinage. London, 1854.

BROWN, WILLIAM KEER.

Letter to the Right Honorable George Canning, relative to a free trade in corn in Great Britain. Canterbury, 1825.

A letter relative to the British trade at Genoa. Harleston, 1823.

On the extension of the British and Irish fisheries. Dover, 1847.

On neutral trade and right of search. Faversham, 1857.

BROWNE, EDMUND HEAD.

A few words on the gold question; shewing that the value of gold will not become depreciated by the large discoveries of that metal. London, 1852.

BROWNE, J. HOUSTON.

The navigation laws; their history and operation. London, 1847.

The navigation laws, a national question. London, 1848.

BROWNE, SIR JOHN, of Dublin,

Seasonable remarks on Trade. Dublin, 1728.

A scheme of the money matters of Ireland. Dublin, 1729.

An essay on trade in general. Dublin, 1728.

A short review of several pamphlets on coin. Dublin, 1730.

The benefits which arise to a trading people from navigable rivers. Dublin, 1729.

BROWNE, WILLIAM JOHN.

The real El Dorado; or, true principles of currency developed. London, 1847.

BROWNE-DIGNAN, D. M.

Essai sur les principes politique d'économie publique. London, 1776.

BROWNING, G.

The domestic and financial system of Great Britain. London, 1834.

BROWNING, REUBEN.

The finances of Great Britain considered. London, 1859.

BRUCE, ARTHUR.

General view of the Agriculture of the County of Berwick. London, 1794.

BRUCE, JOHN, M.P., F.R.S., &c.

Annals of the East India Company from 1600 to 1708. London, 1810.

Report on the Renewal of the Company's exclusive privileges of Trade for twenty years from March, 1794. London, 1811.

BRUCE, W., of Bristol.

Poor-rates for Ireland. London, 1829.

BRUECKMANN, FRANZ ERNEST.

Bibliotheca Numismatum, oder verzeichniss der meisten Schriften so von Münzwesen handeln collegirt. Wolfenbüttel, 1729.

BRUGGEMANN, CHARLES HENRI.

Liste's Nationales System der politischen Oeconomie kritisch beleuchtet. Berlin, 1842.

Der Deutsche Zollverein und das Schutzsystem. Berlin, 1825.

BRUGIERE, J. T.

Quelques idées sur la situation du commerce en France. Paris, 1800.

BRULLEY, CHARLES AUGUSTIN.

Résultats de la révolution quant au commerce à la marine et aux colonies. Paris, 1793.

BRUNACCI, GIOVANNI.

De re nummariâ Patavinorum. Venetiis, 1744.

BRUNET, JEAN.

Le Messianisme; organisation générale constitution de la propriété intellectuelle. Paris, 1857.

BRUNET, GUSTAVE. An ardent Economist, was born in 1809 at Bordeaux. He was general secretary to the committee of the wine-growers, and of the free trade society. He has been an active contributor to the *Journal des Economistes*, to the *Annuaire d'économie politique*, and to the *Libre Echange*.

De la consommation des vins de France en Angleterre. Bordeaux, 1846.

Essai de complément de la statistique du département de la Gironde. Bordeaux, 1847.

Recherches sur le mouvement commercial de la France, et sur celui de Bordeaux en particulier. Bordeaux, 1845.

Progrès de la navigation commerciale d'Angleterre, situation sur la marine française. Bordeaux, 1845.

Lettre à M. le Baron C. Dupin. Bordeaux, 1846.

BRUNS, OH. G. Professor.
Das recht des Besitzes im Mittelalter, und in der Gegenwart. Tübingen, 1847.

BRUNUS, ALBERTUS.
Tractatus augmenti et diminutionis monetarum. 1591.

Tractatus insignis augmenti et diminutionis monetarum, 1506. 1591.

BRYAN, JAMES BUTLER.
A practical view of Ireland from the period of the Union, with plans for the relief of the poor. Dublin, 1831.

BUCHANAN, DAVID. Published an edition of the *Wealth of Nations*, in 1814, with notes and an Appendix.

Inquiry into the Taxation and Commercial policy of Great Britain. Edinburgh, 1844.

BUCHANAN, JAMES. British Consul at New York.

Reasons submitted in favor of allowing a transit of merchandise through Canada to Michigan, without payment of duties, &c. Toronto, 1836.

BUCHANAN, ROBERT. Social Missionary.
Socialism vindicated. Manchester, 1840.

BUCHE DE PAVILLON.
Essai sur les causes de la diversité des taux de l'intérêt de l'argent chez les peuples. Paris, 1756.

BUCHNER, JOANNES CHRISTOPHERUS.
De excolendo studio œconomico, tam principum quam privatorum. Lipsiæ, 1712.

BUCKLAND, JAMES M.
Agricultural Statistics; Practical suggestions for a national system of annual Agricultural Statistics. London, 1855.

BUDELIUS, REREBUS.
De monetis et re nummariâ libri duo, &c. Colonia Agrippinæ, 1591.

BUDIE.
Organisation de l'instruction et du travail. Dole, 1848.

BUDON, GUISEPPE.

Introduzione alla scienza delle monete antiche. Tradotta dal Tedesco. 1790.

BUELOW, ALEXANDER VON. Baron.
Auswanderung und Colonisation in Interesse des Deutschen Handels. Berlin, 1849.

BUELOW, CUMMEROW E. VON.
Das Bankwesen in Preussen, mit Bezug auf die Cabinetsordre vom 11 April, 1846. Berlin, 1846.
Betrachtungen über Metall- und Papiergeld, über Handelsfreiheit, Prohibitiv-System, &c. Berlin, 1824.

Das Normale Geldsystem in seiner Anwendung auf Preussen. Berlin, 1846.

Ueber Preussen's Finanzen. Berlin, 1841.
Ueber Preussen's landschaftliche Creditvereine, &c. Berlin, 1843.

Die Tazen, &c. Berlin, 1847.
Ueber die beabsichtigte neue Organisation der Königlichen Bank. Berlin, 1846.

Der Zollverein, sein System und dessen Gegner. Berlin, 1844.

BUESCH, JOHANN GEORG.
Sämliche Schriften über Banken und Münzwesen. Hamburg, 1801.

Sämliche Schriften über die Handlung. Hamburg, 1824-27.

Abhandlung von dem Geldsumlauf in Rücksicht. Hamburg, 1780.

Von geldumlauf. Hamburg, 1800.

BUFFINI, ANDREA.
Ragionamenti storici economico-statistici e morali intorno all' Ospizio dei Trovatelli in Milano. Milano, 1844.

BUGEAUD DE LA TICINERIE, THOMAS ROBERT. DUCHE D'ISLY, Marshal of France.
Les socialistes et le travail en commune. Paris, 1848.

An onslaught, in true military style, on the idiotic scheme of the Socialists. The Marshal details the utter failure of some military colonies founded in Algeria, on the Socialist principle of working in common.

BUGGIANI, F.
Saggio di studj economici. Venezia, 1849.

BULAU, FREDERIC. Born in 1803. In 1836 appointed professor of practical philosophy at Leipsig.

Encyclopædie der Staatswissenschaft. Leipsig, 1832.

Der Staat und der Landban. Leipsig, 1833.

Der Staat und die Industrie. Leipsig, 1834.

Handbuch der Staatswissenschaftslehre. Leipsig, 1835.

BULLER, THOMAS WENTWORTH.

A reply to a pamphlet by D. Ricardo on protection to agriculture. London, 1822.

BULLION, THOMAS. Pseudonym.
The internal management of a country Bank. London, 1850.

BULLION REPORT. This is the name by which the celebrated *Report from the Select Committee on the High Price of Gold Bullion*, in 1810, is commonly known. It forms one of the great land-marks in Political Economy, and deserves the most attentive study from every student in Political Economy. Not, however, that it contains much that is absolutely novel, because the main subject of its inquiry, and the principal doctrines it lays down, had been previously investigated, and solemnly sanctioned by the Parliamentary Committee which sat and reported upon the Irish Exchanges in 1804. The Bullion Report, however, has acquired far greater celebrity than the Irish Exchange Report, and there can be no doubt it is a more able and comprehensive document. Moreover, it embraces more points of discussion—some of them of the first importance—in Political Economy, and diametrically opposed to the doctrine maintained by the supporters of the Bank Act of 1844. It also contains, in one portion, errors of the most important nature, which we shall point out, and another portion contains the only elaborate attempt, that we are aware of, to explain the fallacy of a very subtle theory of paper currency, put forward by Adam Smith, viz., *that if bank notes be issued only on the discount of mercantile bills of undoubted character, and founded on a real transaction, they cannot be excessive*; which was strenuously maintained by many of the mercantile and banking witnesses before the Committees of 1804 and 1810. The immense importance of the subjects discussed in this Report will demand a very full examination from us, and we shall accordingly give, first, a very short sketch of the circumstances which gave rise to the appointment of the Committee; secondly, the different doctrines maintained by the witnesses; thirdly, an analysis of the Report itself; fourthly, an examination of some errors in it; fifthly, an examination of the above-mentioned theory of paper currency.

2. We have shewn (**BANKING IN ENGLAND**, § 142-149), that in the year 1800, from various causes, there was a great exportation of bullion from this country, that the foreign exchanges fell very rapidly to an extent greatly below par, and the market-price of gold, (i.e., the paper price), rose to £4 6s. It was at this time that the doctrine was first discovered in this country, (Dr. Douglas maintained it in America sixty years before), *that the rise of the market—or paper—price of gold above the mint price was the proof that the paper currency was depreciated*. In a year or two, however, the market price fell, and the subject ceased to occupy public attention till 1804, when the banks in Ireland having made the most extravagant issues, the market—or paper—price of guineas rose 10 per cent., and the foreign exchanges fell to an equal amount, which caused the appointment of the Committee on Irish Currency and Exchanges in 1804. This Committee unreservedly adopted and sanctioned the doctrine that the rise of the market price of gold above the mint price was the proof and the measure of the depreciation of the paper currency, and that the issues of bank notes ought to be regulated by the foreign exchanges. In consequence of the strong censure of the Bank of Ireland, expressed by this Committee, it reduced its issues, and the exchange

was nearly rectified. This Report seems to have been soon forgotten, and for several years the paper price of gold stood about £4 the ounce, showing that there was no very sensible depreciation.

3. About 1808, however, from various circumstances, the measures of Napoleon to shut out the British from the commerce of the Continent, our own measures of retaliation, the opening of the South American markets, and various other causes, a perfect phrenzy of speculation seized upon the nation. It was one of those great speculative manias, such as there were in 1694, 1720, 1772, 1792, 1825, and 1845. Joint Stock Companies of all descriptions for canals, bridges, insurances, breweries, and multitudes of others, started up like mushrooms. At the same time, the Bank of England fanned the flame of speculation to an extent far beyond the bounds of ordinary rashness. It is stated by Sir Francis Baring, in his evidence before the Bullion Committee, that since the restriction, he knew of many instances of clerks not worth £100, who had started as merchants, and had been allowed to have discount accounts by the Bank, of from £5,000 to £10,000, which demand, he said, was caused by the Bank, and not by the regular demands of trade, and which could not exist if the restriction were removed. The paper discounted by the bank, which had been £2,946,500 in 1795, rose to £15,475,700 in 1809.

4. Along with this extravagant speculation, partly caused by it, and partly fanning it, a multitude of country banks started up in all directions, and inundated the country with their notes, exactly as had happened before 1793; in 1790 they had been reduced to 270, in 1808 they had increased to 600, and in 1810, when the Bullion Committee was appointed, they amounted to 721, and the quantity of paper they had put into circulation, was supposed to amount to £30,000,000. At the same time the Bank of England had increased its issues to £21,000,000—a quantity declared by some of the most eminent witnesses far to exceed the legitimate wants of the country.

5. Concurrently with these extravagant speculations and issues of notes, the price of gold bullion rose rapidly, and the foreign exchanges fell in a similar proportion, exactly the same symptoms as had been manifested in Ireland in 1804. The following figures taken at intervals are sufficient to shew the rapid rise of the price of bullion and the fall in the foreign exchanges:—

	Price of			Exchange with		
	Standard	Gold.	Silver.	Hamburg.	Paris.	
1805. Jan. . .	4	0	0	5	4	35.6 . . 25.10
Oct. . .	4	0	0	5	6	82.10 . . 25.12
1808. Dec. . .	no price		5	5		31.3 . . 22.4
1809. May . .	4	11	0	5	5	29.6 . . 20.1
1810. Jan. . .	4	13	0	5	7	28.6 . . 19.6

Up to 1809 there had been a considerable amount of gold in circulation, but in this year it suddenly disappeared, and no one could tell what had become of it, J. B. Say, however, helps to clear up the difficulty, for he says that in that year upwards of £9,000,000 in guineas were smuggled into the Belgian ports. Mr. Baring stated in the House that guineas then brought 26s. and 27s.; and all commerce was being rapidly

thrown into confusion by the rapid fluctuations of the exchange. Under these circumstances Mr. Horner, on the 1st of February, 1810, moved for several accounts relating to currency and exchanges, and on the 19th the Bullion Committee was appointed, of which Mr. Horner was chairman.

6. As the division of opinion on the financial questions at issue before the committee seems to be as permanent and deep seated as the divisions on political questions, it may be of some advantage to state shortly and precisely the points upon which the respective parties were at issue. The facts upon which the main discussion before the Committee turned, *i.e.*, whether the bank note was depreciated or not, were easily ascertained and agreed upon. They were as follows:—

1.—That the Mint price of gold bullion, or the legal standard of the coin, was £3 17s. 10½d. per oz.

2.—That the market price of gold bullion was then £4 10s. per oz.

3.—That the foreign exchanges had fallen to an enormous amount; that with Hamburg 17 per cent., that with Paris 20 per cent.

4.—That the increase of bank notes had been very great during the last few years, and was rapidly augmenting.

5.—That specie had disappeared from circulation.

7. Upon this acknowledged state of facts the opposite issues maintained by the two parties were as follows:—

The one party maintained—

I. (a) That the bank notes were depreciated.

(b) That the difference between the market, or paper, price of gold bullion, and its mint price, was the measure of the depreciation.

II. (a) That the extreme limit to which the foreign exchanges, could by the nature of things fall, in any case, was defined, and easily ascertained, and consisted of the cost of transporting bullion from one place to another.

(b) That in the then state of the exchanges there was a very large excess of depression over and above that limit, which was not attributable to that cause.

(c) That this residual depression of the foreign exchanges, and the rise of the market price of gold bullion above the mint price, was caused by the excessive issues of bank notes in circulation.

III. That a diminution in the quantity of bank notes would increase the value of the domestic currency—would cause the foreign exchanges to rise to par—and the market price of gold to fall to the mint price.

IV. That the Directors of the Bank of England ought, during the restriction of cash payments, to follow the same rules as they were obliged to do before, *i.e.*, to regulate them by the foreign exchanges. When the exchanges were favorable, and bullion flowing in, they might enlarge them, when the exchanges were adverse they must contract them.

8. In opposition to these principles the other party maintained—

I. (a) That it was not the Bank Notes which were depreciated, but the price of specie that had risen.

(b.) That there was no difference between the price of bullion, whether paid in notes or specie.

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II. That the depression of the foreign exchanges was in no way whatever attributable to the depreciation of the currency, but was entirely caused by the adverse balance of payments to be made by Great Britain, the remittances to the army, the continental measures of Napoleon, and other political causes.

III. That no diminution or increase of the issues by the Bank would have any effect whatever upon the foreign exchanges, either in raising or depressing them, or on the market price of bullion.

IV. That since the restriction, there was no necessity for observing the same rules in issuing their notes by discounts, as before, *i.e.*, by observing the course of the foreign exchanges, but that the public demand was the sole criterion. That as long as they confined their issues to the discount of mercantile bills of undoubted solidity, and founded upon real transactions, there could be no over-issue.

9. As to the fact of the rise of the market price of gold, there was no dispute. Mr. Goldsmid, the eminent bullion broker, said that standard gold coin was then £4 10s. the ounce, and foreign gold was still higher, from its being more exportable. It was admitted, by all the witnesses, that the difference between the market and the mint price was about 15 or 16 per cent. The fall of the exchange with Hamburg had been 16 or 17 per cent., that with Paris was rather less. The real question in dispute between the parties was, whether this was to be considered as a fall in the value of the paper, or a rise in the value of gold. Gold had entirely disappeared from circulation within the last six months, and all purchases were made in bank paper. Mr. Merle, a banker and gold refiner, was asked,—

“When you buy gold you pay for it in bank paper?—Yes.

“The payment being made in bank paper, the price is £4 10s. an ounce?—What I sold for the home trade I had only £4 8s. for.

“If you were to pay in guineas, should you get the gold at a cheaper rate?—I could not pay in guineas; I cannot get them.

“Supposing you had guineas to give, could not you buy that gold at a cheaper rate than £4 10s. an ounce?—No; I should not offer a less price, certainly; if I was to buy any quantity of gold, and pay for it in guineas, I should offer the same price as in bank paper.

“When you speak of the mint price being £3 17s. 10½d. an ounce, do you calculate that in gold coin or in bank paper?—We make no difference, and I do not believe that there has been any difference in paying in specie or bank paper.

“Is not the reason why an ounce of gold is worth £3 17s. 10½d., that as many guineas as weigh an ounce amount to that sum?—Yes; if a gentleman came and brought me gold, I should pay him exactly the same, whether I paid him in gold coin or bank notes.

“The mint price of gold is the price calculated in gold coin?—Yes.

“And the market price of gold at present is calculated by paper?—Yes, it is all paid in paper, but if they were to pay guineas, foreign gold would still bear the same price as it does now if the exchange continued the same.

“If I go to a silversmith's shop, and see a gold

cup in weight and fineness exactly 100 guineas, and the silversmith asks me £10 besides for the workmanship, if I offer him £115 for that cup, would not his answer be the gold itself is worth that; would he take £115 in bank notes?—Certainly; for the gold that I sell, I receive bank notes in payment.

"How much would it cost you in bank notes to buy that quantity of gold which in weight and fineness would be equal to 100 guineas?—£105.

"Do not you sell English gold at £4 8s.?—Yes.

"If I go to a silversmith's shop, and see a gold cup in weight and fineness exactly 100 guineas, and the silversmith asks £10 besides for the workmanship, what would the worth of that cup be now?—A cup of equal fineness and weight to 100 guineas, taking the cup at £3 17s. 10½d. an ounce, would be worth £105.

"What is it worth at the present price?—According to the present price of gold, it would be worth £118 2s.

"Would not the silversmith require £118 2s. for the weight of the gold, and £10 besides for the workmanship?—I suppose he would, because gold is so much above the standard price.

"Supposing no legal restrictions to exist, and no scruples to exist in your mind to the making a difference between paper and guineas, and that you were left simply to the calculation of your own interest, could you not in that case make a considerable difference in the sale of any article for £100 in paper, or £100 paid in specie?—Yes; if I was allowed to melt guineas, it would make nearly 10s. an ounce difference to me.

"What difference would you make upon the value of £100?—About half-a-crown upon each guinea; I could afford to sell the gold for 8s. less than I am obliged to do now, if I was allowed to melt guineas."

10. The same witness was asked, "When all guineas were weighed, and the price of gold was about the standard price, £3 17s. 10½d., were guineas frequently refused if they were a fraction of a grain below that?—Yes; when cash was in circulation, they were always refused if they were under 5 dwts. 8 grains, however trifling only, just a move of the scale on the weight side.

"No gold has been seen in circulation lately?—No.

"How long has that been the case?—It has been growing worse every day; but I suppose for the last six months.

"In the six months preceding it, what was the average weight of the good guineas in circulation?—They must have been 5 dwts. 8 grains and upwards.

"How much under the weight at which they came from the mint?—About a grain and a half, as near as can be, lighter than that at which the mint would issue them; the good guineas should be 5 dwts. 8 grains and upwards; if they weigh 5 dwts. 8 grains, we never weigh them more, because they pass current.

"If you could now purchase light guineas at the standard price, what would you do with them, would you melt them down?—Yes, certainly, if they were light.

"You do not take them to the bank or the mint to be melted?—No.

"Can you state the proportion of gold which is

in circulation in ordinary dealings at this time to the proportion of bank notes?—No, I cannot; we see no gold now; my clerks, who are out collecting every day, do not perhaps bring me a seven shilling piece."

11. Mr. Goldsmid was asked, "If a person in possession of 100 guineas, of full weight, were to melt them into bars, and sell them in the market, what sum in Bank of England paper would he be able to obtain for them?—He would have acted illegally in melting the guineas, and his bar would be unsaleable.

"How could the buyer know that that bar was melted from English guineas?—No bar is sold for exportation, unless the proprietor swears before the Court of Aldermen, as I have already said, that it is melted from foreign coin, or from foreign gold in bars.

"Supposing the persons concerned were nevertheless to take that oath, what profit would they obtain upon that transaction?—They would, in the first instance, obtain the profit which arises from the difference between the market and the mint prices of gold; and, in the next place, if they were to export it, they would derive the profit of the export merchant.

"Upon the sum of 100 guineas full weight, how much would the first of those profits amount to in pounds, shillings, and pence?—£15 11s. 6d.

"Then, for 100 guineas melted into a bar, he would have obtained £121 11s. 6d. in Bank of England paper?—Yes.

"If he could for £105 have obtained £121 11s. 6d., and contrive to procure 100 more guineas, would he not have made a profit of £15 11s. 6d. and be in a condition to repeat that operation?—Certainly.

"Does not the same temptation to melt our lighter coin exist in proportion to its approach to full weight?—Certainly it does.

"Is there not a positive temptation to melt all our English gold coin, that is not degraded, for 16 per cent.—Yes.

"Do you think that in the market that person could get the £121 11s. 6d. paid to him for his bar in specie?—The practice of the Bank has always been to pay and receive money in bank notes."

12. Mr. Greffulhe, a general merchant trading to the continent, was asked, "To what do you ascribe the fall of exchange between London and Hamburgh, near 18 per cent.?—Altogether to the commercial situation of this country with the continent, to the circumstance of the imports and payment of subsidies, and having very much exceeded the exports.

"Do you speak of the last two years?—Particularly of the last year; it is only within the last year that the exchange has fallen so much.

"Do you judge of the balance of trade having been against this country in the last year from the state of the exchange, or, from your own knowledge of the excess of the imports above the exports?—I certainly judge of it in a great measure by the state of the exchange, which, according to my apprehension of the subject, can only be influenced by the balance of trade. * * *

"Does your experience, as a merchant dealing in foreign exchanges, enable you to give an opinion whether the excess of paper currency in any country would have any effect in lowering the ex-

change of that country with others?—A forced paper currency certainly would.

"The question goes to an excess of paper currency whether forced or not?—I cannot well conceive a paper currency being permanently excessive unless it is forced.

"But in the case of a paper currency being forced, is it not the circumstance of its thereby becoming excessive, and not the circumstance merely of its being forced, that has a tendency to lower the foreign exchanges?—I conceive it, in the first place, to arise from that paper being excessive; and, in the next place, to that paper representing no real value. * * *

"Do you conceive that an excess of imports above exports can account for the rates of exchange being so high as 16 per cent. against this country for a permanent period of time?—I certainly think so; I conceive the cause of the present state of exchange to be entirely commercial, with the exception, I should add, of the payments which Government have had occasion to make upon the continent, in the shape of subsidies, the payment of troops, &c. * * *

"Supposing the metallic currency of any country should, from any cause, become excessive, and the means of exporting bullion or specie from that country should at the same time be effectually obstructed, do you conceive that such a state of things would tend to create a course of exchange unfavorable to the country so circumstanced?—That surplus of currency would, in my opinion, certainly tend to enhance the price of all commodities, and to depreciate the exchange. But I do not conceive this to be applicable to the Bank paper currency of this kingdom, which, from its nature, and from the manner in which it ought to be, and I believe is issued, can scarcely, in my opinion, be carried to an excess; it is only called forth by the real wants of trade and circulation, and is always represented by a valuable consideration. *I conceive, that as long as bills of undoubted solidity are sent into the Bank for discount, the Bank are fully justified in issuing their notes against these bills, without any fear of the amount of their currency becoming excessive.* The increase in the amount of bank notes in circulation within these few years, is, in my opinion, accounted for, in the first place, by the increased commerce of the country, and in the next place by the increase of the public debt and the consequent taxation, which has the effect of enhancing the prices of all commodities; and the amount of currency required for the purpose of facilitating the exchange of those commodities, or in other words, for trade and circulation, must naturally increase in the same proportion.

"When you say 'Enhance the price of all commodities,' do you include foreign bills of exchange among those commodities?—Certainly not; I am now alluding to the internal concerns of the kingdom, which I conceive to be altogether distinct from its foreign trade.

"Do you, then, conceive, that to whatever extent the Bank affords facility of discount, either to the Government or to individuals, provided the security be good, and payable at fixed dates, that no excess of circulation in bank paper can possibly take place?—I conceive that the wants of the circulation are, of course, confined to a certain sum; whatever proportion of that sum is invested by

the Bank in Government securities will diminish in the same proportion the calls of the public upon the Bank for discounts; the amount of notes, therefore, in circulation will remain the same. The point where, in my opinion, the Bank ought to stop in such purchases of government securities, is when good, responsible bills are no longer sent into the Bank by the public for discount; that I conceive to be a certain sign of the wants of circulation being fully supplied, and any subsequent issue becomes, in my opinion, an excess of paper currency.

"Suppose an advance to be made on goods that may be pledged with the Bank instead of bills, would that, in your opinion, create an excess of circulation?—I conceive it to be highly proper that the securities discounted by the Bank should be payable at short and fixed periods.

"Do you conceive that all that would be requisite to prevent a depreciation of paper currency in any country would be, that such paper should in no instance be issued but as a representative of a good security, payable at a fixed period?—I answer that in the affirmative, certainly.

"Do you conceive that there exists the same security for the public against the inconvenience of an excess of circulation when the payments in cash at the Bank are suspended, as when the Bank was at liberty, and under obligation to make its payments in cash?—I conceive so, if the Bank strictly adhere to the system of discounting no bills but of undoubted solidity, and government securities, the latter with due moderation and the caution pointed out before.

"Are you aware of the practice that prevails among country bankers, with respect to discounts and advances in their paper?—I partly am.

"What is that practice?—The country banks are in the practice, I believe, of issuing notes upon the security of goods, houses, and lands, in addition to the ordinary discount of bills of exchange.

"Of course the security upon which those advances were made is not convertible at any fixed period?—I believe not.

"Do you conceive that from this practice of the country banks an excessive circulation may arise?—I am inclined to think that the system of country banking has been carried too far in this respect.

"Are you of opinion that if the country bankers confine their advances within the same limits as to the description of security which prevails in the Bank of England, that the accommodation afforded by them to the public could not lead to any excess in the circulation?—I believe not. I think the same principle will apply to the country banks, that I applied to the Bank of England.

"Then assuming there to be some excess in the circulation, the cause to which you would ascribe it, is this practice of the country banks?—I am inclined to think so.

"Is it your opinion that there is now, or has been at any time, such excess in the circulation?—I believe at some periods, certainly, too much facility has been shewn by the country banks in the issuing their paper."

13. Mr. Whitmore, the Governor of the Bank, and Mr. Pearse, the Deputy-Governor, being examined, said that, though they adverted to

other circumstances in granting discounts, they never took any notice of the exchanges, as they did not believe that the number of their notes had any connexion with them. Mr. Pearse said, "In considering this subject with reference to the manner in which bank notes are issued, resulting from the applications made for discounts to supply the necessary want of bank notes, by which their issue in amount is so controlled that it can never amount to an excess, I cannot see how the amount of bank notes issued can operate upon the price of bullion, or the state of the exchanges, and, therefore, I am individually of opinion that the price of bullion or the state of the exchanges can never be a reason for lessening the amount of bank-notes to be issued, always understanding the control which I have already described.

Mr. Whitmore. "I am so much of the same opinion, that I never think it necessary to advert to the price of gold, or the state of the exchange on the days on which we make our advances."

14. Being asked what were the rules observed by the Bank in regulating their issues, so that they should not be excessive, he said: "I have already stated that we never forced a bank-note into circulation, and the criterion by which I judge of the exact proportion to be maintained, is, by avoiding, as much as possible, to discount what does not appear to be legitimate mercantile paper. The bank-notes would revert to us if there was a redundancy in circulation, as no one would pay interest for a bank-note that he did not want to make use of."

Mr. Pearse. "I agree in that opinion, and beg to make these additional observations: that in discounting bills that are sent to us for that purpose, for which a discount is taken at the rate of 6 per cent. per annum; if there was with the public an excess of bank-notes, those bills would be sought for discount by the public at a reduced rate, and would not make their appearance at the Bank. We have daily evidence in our discounting of the indications of the abundance or scarcity in the quantity of bank-notes, by the applications for discounts, for the reasons already assigned, which is particularly proved by our experience on the Tuesdays and Wednesdays in every week, in consequence of our discounting London paper on the Thursdays only, producing, by that operation, invariably, a certain degree of scarcity the two preceding days, and a plenty the day following,

"Do you measure the scarcity by the application for the discount of good paper?—Certainly; and our discretion by the quality.

"Then your measure of scarcity or abundance is by the greater or less application that is made to you for the discount of good paper?—Certainly.

"Does not the circumstance of individuals applying for advances, or not so applying, at 5 per cent., indicate rather a deficiency, or a redundancy of the mercantile capital, than a superfluity, or want of circulating medium?

Mr. Pearse. "I am not of opinion that the application for bank-notes is for any other purposes than as a circulating medium in the interchange of property."

"Is it your opinion that the same security would exist against any excess in the issues of

the Bank, if the rate of the discount were reduced from 5 to 4 per cent?

Mr. Whitmore. "The security against an excess of issue would be, I conceive, precisely the same.

Mr. Pearse. "I concur in that answer.

"If it were reduced to 3 per cent?

Mr. Whitmore. "I conceive there would be no difference if our practice remained the same as now, of not forcing a note into circulation.

Mr. Pearse. "I concur in that answer."

"Suppose a case in which no demands were made upon the Bank by Government, but an unusual demand was made by merchants for increased facilities of discount, would the Bank, in such a case, consider itself as bound, in order to support public credit, to grant that increase of discounts, although there was a run upon it for gold, occasioned by the high price of bullion, and the unfavorable state of the exchange?—I now consider my answer as my own opinion, not having the opportunity of consulting the Bank on the question; in my opinion, the Bank would not increase their discounts, nor, on the other hand, would it, I think, after the experience of the years 1796 and 1797, do well materially to diminish them.

"Do you mean that they would lean rather to the side of diminution?—They would rather lean to that side than to the other.

"What do you consider as the result of the experience which the Bank gained in 1796 and 1797, alluded to in your preceding answer?—*The experience the Bank gained in those years was, that if they had persisted in diminishing their discounts to a greater degree than they did, they would have brought on ruin to the mercantile part of the community.*

"Did not the diminution of discounts at those periods create great public distress?—Inasmuch so as I have already stated; *many of the Bank Directors repented of the measure.*

"Was not the drain upon the bank which took place at that time, occasioned chiefly by a demand for an increased quantity of gold in the country, in consequence of the failure of country banks, and a disposition to hoard guineas through the fear of invasion?—To the best of my recollection there was at that period failure of some of the country banks, and that a consequent demand was made upon the bank for guineas."

"Whether or not there was in the end of the year 1796, and the beginning of the year 1797, a considerable diminution of the outstanding notes of the Bank of England?—There was.

"Was not much of the public and commercial distress which arose at that period attributable to that diminution?

Mr. Whitmore. "I have no doubt about it.

Mr. Pearse. "Undoubtedly.

"Whether in your opinion it was not a much wiser measure, relative to the mercantile interests of the country, that the restriction of cash payments should have taken place in 1797, than that the bank should have persevered in diminishing the issue of bank notes in discount?

Mr. Whitmore. "Certainly."

"You have stated that in the case of a drain of cash arising from a foreign demand for gold, accompanied with an unfavorable exchange, at

the time when the bank should be paying in cash, you should advise some limitation of bank paper; do you think that in the event of an equal demand for gold from abroad, accompanied with an equally unfavorable exchange, it would be expedient in like manner to limit the bank paper, although there should result from this state of the exchange no drain upon the bank for guineas, in consequence of the existence of the law authorizing a suspension of the bank payments?

Mr. Whitmore. "In my opinion, the bank would act precisely the same in both cases; with a desire to keep the gold in the country, they would refuse discounts to such parties, as in their opinion would export the bullion equally, whether the restriction was upon them or not?"

Mr. Pearse. "Being of opinion that the amount of bank notes in circulation, controlled as it is by the occasions of the public for internal purposes, cannot influence the rate of the Hamburg exchange, and the consequent export of bullion, (which opinion is borne out by a statement I have already given in,) I should not recommend a diminution of such amount.

"Do you mean to say, that supposing the restriction bill to exist, you should advise some diminution of bank paper, in the event of the long continuance of a very unfavorable exchange with all foreign countries?—Certainly not; because I have stated in a former answer, that from the manner in which the issue of bank notes is controlled, the public will never call for more than is absolutely necessary for their wants.

"Did you not mean in your former answer, that supposing the Bank to pay in cash, and a great drain for cash to arise at a time of a very unfavorable exchange, you should incline to advise some diminution of bank paper, and consequently some restriction of the supply of discounts below the demand that should be made for them?—I must recommend it from necessity, although in my opinion it would not improve the exchange; I think it one of the advantages of the restriction bill, that we are not driven to that necessity.

"Are you not, therefore, of opinion, that the measure of restriction of the cash payments of the bank is proper, not merely as a temporary measure to obviate temporary difficulties, but as a measure of permanent policy?—Although under existing circumstances the restriction bill is found necessary, and experience has proved, as well as I can judge, that no injury results, or is likely to result from it, yet in a different situation of affairs, the necessity for its operation might no longer exist.

"What inconveniences would you see in your view of the operation of the restrictive system, to its being a permanent measure, supposing the bank to regulate its issues in the manner you have described?—From our experience, and in my view of it, I can see no positive inconvenience likely to result from its being a permanent measure, nor do I see any advantage that will arise from its being continued, when our political and commercial relations will admit of its removal; and I am further of opinion, that in addition to the satisfaction, which as a bank director I should derive from the removal of the restriction, (when the necessity for it ceases) the feelings of the

public would not be satisfied, unless it had in expectation such a change.

"Is the restriction of the Bank a cause of the unsteadiness in the course of exchange?—Undoubtedly not.

Mr. Whitmore. "I concur in that answer.

"If a large quantity of metallic circulating medium existed in a country capable of exportation, either in the shape of coin or of bullion, must not that prevent the course of exchange from being much more unfavorable to the country possessing it, than would cover the expenses of exportation?—*Mr. Pearse.* Undoubtedly, but the quantity of bullion in the country for such objects can only depend upon commercial and political transactions, totally unconnected, as far as I can judge, with any effect of the issue of bank-notes.

"Can any paper currency have the same effect?—I think not.

"Since the suspension of the Bank payments in cash down to the present time, has there been any material extension of its commercial discounts?—*Mr. Whitmore.* I find the commercial discounts have varied nearly in the same proportion to the Bank advances upon other securities; the amount of the bank-notes before Parliament is a certain criterion of the aggregate of their advances on different securities to Government; and on all securities the discounts have certainly increased since 1797, owing, as I conceive, to the increased trade of the country.

"Have they increased in a very large proportion?—Within the three last years, they have increased considerably."

"If it were not for this feeling or expectation on the part of the public, should you be of opinion that it would be expedient to continue the restriction as a permanent measure, inasmuch as it would not only relieve the Bank for the expense of purchasing and keeping a large supply of bullion, but also effectually protect both them and the public from a repetition of those inconveniences which first led to the restriction, and that these advantages would be produced without creating any other inconvenience by which they might be counterbalanced?—*Mr. Pearse.* I have already stated, in answer to a former question, that I am not aware of any positive inconvenience resulting from the present operation of the restriction bill, or likely to result from its being rendered permanent, except as far as regards an expectation on the part of the public, that it will be removed.

"Has the present unfavorable state of exchange any influence upon the amount of your issues?—

Mr. Whitmore. "It has no influence upon the amount of our issues, having acted precisely in the same way as we did before.

"Does there, in your opinion, exist any excess in the circulation of the kingdom, arising from the amount of issues of the country banks?—*Mr. Pearse.* I have no practical knowledge of the amount of country bank paper, nor any means of judging of what may be necessary as a circulating medium. There seems to be a great increase within a short time, especially within the last two or three years—greater than I can imagine any alteration of circumstances within that time can legitimately call for.

"Does not all country paper, so long as it con-

tinues out, circulate at par; or, in other words, is it not interchangeable with paper of the Bank of England?—It must circulate at par, or it would return upon the parties that issue it.

"Before the restriction, were not country bankers liable to an extraordinary demand for gold, whenever there was any continued run upon the Bank of England?—Certainly.

Mr. Whitmore. "I agree perfectly with what *Mr. Pearse* says.

"Has the holder of the paper of any country bank any interest to convert it into Bank-notes, if he feels no alarm as to the credit and solidity of the country bank?—*Mr. Pearse.* I should think not.

"Before the restriction, was there not such an interest to exchange country bank paper for gold whenever the market price was materially above the mint price for gold; and did not such an exchange, whenever it took place, lead to a diminution of the circulation?—Although the exchange was often unfavourable to this country previous to the restriction, it was never in my experience sufficiently so to produce such an effect; but as it is now so materially unfavorable, no doubt every exertion would be used to get possession of gold."

"So long as the market price of gold continues to be above £4 per ounce, and the course of exchange with foreign countries in a corresponding degree unfavorable to England, will not the stock of gold in the Bank be continually decreasing by the issues which must unavoidably be made for certain small payments, or for the public service, so that in the course of time, were the present state of things to continue, and the Bank not to purchase at a great loss, the whole would be exhausted?—The purchases made by the Bank have been at a very great loss, and they would think it their duty to sacrifice still more to the public service, to keep up the quantity of specie for the purposes for which it is used."

"Does not the unfavorable course of exchange with foreign countries tend, even under the present restriction, in some degree to render its continuance and prolongation necessary, in so far as that necessity may depend on the proportion of specie in the coffers of the bank to the amount of its notes in circulation?

Mr. Whitmore. "In my opinion the high price of gold bullion abroad, does make it necessary to continue the restriction; but I have already observed that the low state of exchange has not operated before the restriction to drain us of our guineas to any material extent.

Mr. Pearse. "Undoubtedly it does, as far as regards the supply of the public wants with a circulating medium, as it would not be possible for the bank to continue that supply, if the restriction bill were removed, whilst the foreign exchanges remain so unfavorable as at present—a profit of from 10 to 15, to 20 per cent. upon converting guineas into bullion, would be too great a temptation to allow any to remain in the bank, as long as a bank note remained in circulation. The bank would therefore inevitably be driven to the necessity of calling in its notes, or, in other words, of reducing its advances on bills, &c., which would produce that distress, which the restriction bill was passed to prevent.

"In case the Bank was now open, and the exchanges were as they are now, and the price of gold also, should you be of opinion that the Bank ought to restrain the amount of its discounts in consideration of the drain of gold, which would result from these circumstances?

Mr. Whitmore. "If the Bank experienced a drain of gold, they would pay a very great attention to the description of persons to whom they afforded the discounts, and so far their caution would tend to diminish their total amount of discounts.

"When you state that the present high price of gold abroad would occasion a drain upon the bank, and that it was never so high before the restriction, as to occasion such a drain in any material degree; is not the course of exchange with foreign countries the only criterion by which you judge of the high price of gold abroad?

Mr. Whitmore. "The high course of exchange upon foreign countries is not the criterion I judge by, but the notoriety that the gold coin of this country is bought up in order to be exported.

Mr. Pearse. "The course of exchange certainly is the criterion."

"Do you believe that the refusal of the Bank to discount for persons suspected of being concerned in the unlawful traffic of melting down or exporting guineas, would, in point of fact, prevent such unlawful traffic, so long as the market price of gold should continue so high above the mint price, as to afford a profit on the traffic?

Mr. Whitmore. "I believe our refusal to discount tends to lessen though not altogether to prevent it.

Mr. Pearse. "With the best intentions on our part, I am not of opinion that such refusal can prevent it.

"If any period were now fixed upon though a distant one—such for instance as one, two, or three years for the termination of the restriction—should you not be of opinion as a bank director, that it would become necessary for the Bank gradually to diminish the amount of its notes in circulation, and to regulate the amount of its issues, with a reference to the course of exchange with foreign countries; thereby on the one hand guarding as much as possible against any sudden and general embarrassment to the circulation of the country, and on the other preparing itself in such a manner, as might be least likely to produce any derangement of our commerce to meet the opening without any risk of a demand for specie being then made, for the purpose of profit in exporting it to foreign countries?"

Mr. Whitmore. "In my opinion we could not restrain the amount of discounts on the Bank, without so materially affecting the trade and revenue of the country, that it would be advisable to wait the period of peace, when I should hope the question will be considered in the most ample and impartial manner, and that as we may have good reason to expect the demand of gold bullion on the continent would cease, and the trade of the country allow of the importation of the articles, the Bank might be enabled to resume their cash payments without inconvenience, or a prospect of their not being able to continue them.

"Suppose the measure to be determined on by Parliament, of the opening of the Bank at a distant period, should you think that in the event of

the exchanges continuing the same, or nearly the same, some restriction of the Bank issues ought to take place, with a view to prepare for the opening?—Provided it was imperative upon us to open, I should think a restriction of the Bank issues would be necessary, notwithstanding the fatal consequences that might arise from it to the commerce and revenue of the country.

Mr. Pearse. "In the contemplation of the removal of the restriction bill till at any definite period, it would become necessary for the Bank to regulate the amount of its issues with a reference to the course of exchange with foreign countries; but while that exchange continues unfavorable, (an event as arising out of the balance of payments, not within the control or influence of the Bank,) I cannot see that any regulation within the means of the Bank would, in the event of an opening, effectually preclude the risk of a demand for specie being then made for the purpose of profit in exporting it to the continent."

"Do you not believe it impossible that the course of exchange should continue at its present unfavorable rate for any length of time, if the restriction of the cash payments of the Bank were removed?"

Mr. Whitmore. "I should think it very likely to continue as it is now, if the trade of the country and the prices abroad were also to continue as they now are."

Mr. Pearse. "It would, or it would not, continue, according as the trade of the country and its political expenses would operate."

"Then you do not believe that the facility which would be acquired of obtaining guineas by the removal of the restriction on the Bank, would operate upon the rate of exchange with foreign countries?"

Mr. Whitmore. "In whatever extent the guineas and the bullion might be exported, it would operate to the improvement of the exchange, like the exportation of any other commodity."

Mr. Pearse. "I concur in that opinion with the Governor."

"Is it not the practice with the Bank to keep the issue of their notes rather below the amount which the occasions of the public would appear to require, than to allow any excess of their amount with a view to profit?—I think I have already stated that the Bank does not comply with the whole demand upon them for discounts, and that they are never induced, by a view to their own profit, to push their issues beyond what they deem consistent with the public interest."

The opinions of the majority of commercial men, at this time, were well expressed by Mr. Chambers, a general merchant. "Have you ever had opportunities or occasions to consider the effect of an excessive, or forced paper currency, in any country upon its foreign exchanges with other countries?—In a small degree I have."

"What do you conceive the effect of such excess to be upon the foreign exchanges?—I apprehend the effect on the exchange would follow the depreciation of a forced currency."

"What do you say as to an excessive currency though not forced?—I do not conceive the thing possible."

"What do you mean by a forced paper currency?—A paper which I am obliged to take

against my will for more than its value. It is not forced so long as people take it willingly, which they will naturally do while undepreciated."

"May not the quantity of metallic currency be increased in proportion to payments which it has to effect, by an increased issue from the mines; and will not that have the effect of raising the money prices of all commodities?—I conceive an increase, or abundance of silver, or gold, would have the same effect upon those precious metals as a glut of any other commodity upon the market."

"And in the same manner may not that paper currency which continues to preserve its credit unimpeached, and which commercial people are perfectly willing to receive, be so augmented in quantity as to raise the local prices of commodities?—I do not conceive that that piece of paper for which I am obliged to give a valuable article of merchandize, can be increased beyond the want of it; nobody will give a valuable article for a piece of paper, that does not want it."

"Have you ever happened to pay any attention to the history of the paper currency of Scotland, between thirty and forty years ago, or to that of Ireland about the year 1804?—Some years ago I remember reading something about them, but the recollection is rather faint upon my mind."

"Do you call that paper, in your sense of the word forced, a forced paper currency, which either by law as it stands, or by force of public opinion, is not convertible into specie at the option of the holder?—*If it be convertible into other objects of my gratification without depreciation, I do not consider it forced.*"

"At the Mint price of standard gold in this country, how much gold does a Bank of England note for one pound represent?—5 dwts. 3 grns."

"At the present market price of standard gold of £4 12s. per ounce, how much gold do you get for a bank note of £1?—4 dwts. 8 grns."

"Do you consider that a bank of England note for £1, under these present circumstances, as exchangeable in gold for what it represents of that metal?—*I do not conceive gold to be a fairer standard for Bank of England notes than indigo, or broad cloth.*"

[Question repeated.]

"If it represents twenty shillings of that metal at the coinage price, it is not."

"If I go to a silversmith's shop and see a gold cup which he tells me is in weight exactly 100 guineas, and that he must have £10 more for the workmanship, will he give me that cup for £115 in Bank notes, gold bullion selling at £4 12s. per ounce?—He would sell his gold cup as he would any other bullion, at the bullion price, I suppose."

"Am I to understand by that, that he would sell his cup for £120, or thereabouts, being the value of the gold besides the £10 for the workmanship?—Yes."

"Will you state to the Committee, in your opinion, to what causes is referable the present unfavorable state of exchange between England and the Continent?—To the balance of payments being against this country."

"Can you give cases to illustrate the fact that you have assigned of the balance of payments being against this country?—Large British armies on the continent, slow returns for exports, quick

payments for imports, and very large stocks of imported goods now on hand in this country.

"Is there any other cause to which you attribute the present state of exchange?—I know of none other, that can affect it, excepting that of a forced depreciated currency.

"Is it your opinion that the currency of England is depreciated?—Certainly not."

15. Mr. Jeremiah Harman, a director of the Bank of England, who was examined on several subsequent occasions, and was always a stout opponent of the doctrine that the issues of bank notes had any influence on the exchanges, was asked, "Please to state what you conceive to be the principle by which the Bank of England regulates the extent of its issues, do you conceive it to be their practice, for example, to discount bills to the extent to which they are required, supposing the bills to be good, and to appear to be for real transactions, and the party applying to make application for no more than a reasonable amount; or do you take at all into consideration the state of the exchanges, and in any degree diminish the total amount of discounts afforded, and consequently, also the paper issues, when the exchanges are particularly unfavorable?—One of the first objects we have in view is the solidity of the paper brought in, and although we have no precise limit, we constantly keep in view the aggregate amount, as well as the amount of every individual account. With regard to the other part of the question, though the state of the exchanges is constantly watched, the amount of our discounts is not regulated with any reference to that circumstance."

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"Do you not think that the sum total applied for, even though the accommodation afforded should be on the security of good bills to safe persons, might be such as to produce some excess in the quantity of the Bank issues if fully complied with?—I think if we discount only for solid persons, and such paper as is for real *bonâ fide* transactions, we cannot materially err."

* * * * *

"Supposing the exchange to continue long and greatly unfavorable, should you not be disposed to refer this circumstance in some measure to an excess of paper currency, or should you assume that the balance of trade had continued during that long period unfavorable?—I must very materially alter my opinions, before I can suppose that the exchanges will be influenced by any modifications of our paper currency."

16. There was but a single witness before this Committee who had clear and accurate views on the question, an anonymous continental merchant. He was asked, "Have you ever known the exchange to fall to the extent of 12 to 15 per cent. in any part of Europe, in which it was computed in coin containing a fixed quantity of gold or silver, or in paper, or bank money, exchanged at a fixed agio, either for such gold or silver coin, or for gold or silver bullion of a definite amount?—No, never except in countries where the export of their currency has been effectually prohibited, such as Sweden.

"Is it to Sweden only that you refer in making that exception?—I do not just now recollect any other country, where paper resting upon the

foundation of coin, the latter is effectually prevented from being exported.

"How is that prohibition made effectual in Sweden?—By the bank not issuing specie to any amount when the exchange is depreciated.

"What is the extent to which you conceive that the exchange is capable of falling in any country in Europe, at the present time, supposing it to be computed in coin of a definite value, or in something convertible into a definite quantity of gold or silver bullion?—The charge of transporting it, together with an adequate profit in proportion to the risk the transmitting such specie is liable to, would be the extent of the fluctuation.

"Can you state how much per cent. may be the present expense and risk of transporting gold from London to Amsterdam, or Hamburg, or any other principal places of trade on the continent?—Independent of the premium of insurance, it would be from 1½ to 2 per cent. from London to Hamburg.

"What do you conceive to be the amount of the risk?—The risk is so very variable from day to day, that it is impossible for me to state any fixed premium.

"What do you conceive to have been the average risk for the last fifteen months?—About 4 per cent.

"Do you not then conceive that such a fall of our exchange as has exceeded the sum necessary to compensate for the expense of transporting gold and silver in the last fifteen months, must be referred to the circumstance of the existence of a paper currency not convertible into specie?—Yes, certainly.

"Do you conceive, then, that out of the 15 or 20 per cent. which the English exchange has fallen in the last fifteen months, the larger proportion of from 10 to 12 or 13 per cent. may be referable to the circumstance of our paper currency not being convertible to cash?—I am clearly of that opinion.

"Do you then consider our paper as depreciated 10 to 13 per cent. in consequence of its non-convertibility into cash?—As I value everything by bullion, I conceive the paper currency of this country to be depreciated to the full extent of the 15 to 20 per cent.; or rather the difference in this country between the price of bullion, and the rate by which the coin is issued from the Mint.

"Do you conceive the balance of trade with the continent of Europe to be now for or against this country?—I conceive it to be considerably in favor of this country."

* * * * *

"Do you conceive that the quantity of bank paper in England influences its price, and has an effect upon the exchange?—In my opinion, the same principles attach themselves to bank paper, as to any other commodity, when carried to a certain extent.

"Do you not conceive that the limitation of bank paper has a general tendency to improve the exchange, and to augment its price?—Its price would certainly, in my opinion, be enhanced by its limitation, or what is the same thing, the nominal value of every article would be reduced; when this reduction had brought the price of bullion to the Mint value, the exchange would be at near par. A further diminution of this, or any

other circulating medium, would not tend to raise the exchange." * * *

"Is not the depreciation of paper currency as to its effect on foreign exchanges, the same as would be a debasement of the coin?—Yes, certainly, with the distinction that the extent of the one can be distinctly ascertained, but not that of the other."

Such are the opinions of the witnesses upon the great points of discussion before the Committee. We shall now give an abstract of this celebrated Report, reserving two parts of it for fuller discussion.

It was the composition of Mr. Horner, Mr. Huskisson, and Mr. Thornton.

Analysis of the Bullion Report.

17. The mint price of gold is £3 17s. 10½d. per ounce of standard fineness; but during 1806, 1807, 1808, the market price was £4. Towards the end of 1808, it rose rapidly, and stood very high during the whole of 1809, fluctuating from £4 9s. to £4 12s. per ounce. The price at £4 10s. is about 15½ per cent. above the mint price. The price had continued very much the same during that year—1810.

The price of foreign gold coin is generally higher than that of bar gold, as being more useful in foreign markets; the difference lately has been about 2s. per ounce. There is also a difference of about 4s. per ounce between bar gold, which may be sworn off for exportation as being foreign gold, and such as the dealer will not venture to swear off, the former being about £4 10s. in the market, and the latter £4 6s. Owing to these various distinctions, the price of exportable bar gold should be chiefly regarded in the present inquiry.

But the price of silver should be regarded as well. The mint price of standard silver is 5s. 2d. per ounce; at which price Spanish dollars are really worth 4s. 11½d. per ounce. During 1809, these dollars fluctuated from 5s. 5d. to 5s. 7d. per ounce, or from 10 to 13 per cent. above the mint price. During May, 1810, they were quoted at 5s. 8d., being more than 15 per cent. above the Mint price.

The exchanges with the Continent—Hamburgh, Amsterdam, and Paris—being the places with which they were established, had likewise become extremely unfavorable. During the latter half of 1809, and first quarter of 1810, those with Amsterdam and Hamburgh had been depressed from 16 to 20 per cent. below par; and that with Paris still lower. Since April, they had, to a certain extent, improved; that with Hamburgh had risen from 29.4 to 31; that with Amsterdam, from 31.8 to 33.5; and that with Paris from 19.16 to 21.11. These figures shewed that the exchange with Hamburgh was then £9 per cent. below par; that with Amsterdam, £7 per cent.; and that with Paris more than £14 per cent. below par.

All former reasonings and experience shewed that so remarkable a rise in the market price of gold, coupled with so great a fall in the foreign exchanges, was to be attributed to the state of our domestic currency. But, nevertheless, they had wished to hear from persons of commercial experience, what they had to say upon such an unusual state of things.

18. I. With respect to the High price of Gold.

Most of the witnesses ascribed the high price of gold entirely to an alleged scarcity of the article, arising from an unusual demand for it, chiefly for the use of the French armies, increased also by that state of alarm which leads to hoarding.

The Committee was of opinion that in a sound state of the British currency, the foundation of which is gold, no increased demand for gold wherever, or from whatever causes arising, could possibly produce here, for any length of time, a material rise in the price of gold. They doubted too, for other reasons, whether such an alleged demand for gold had really operated in the manner supposed.

If an unusual continental demand for gold influenced its market price in this country, it must also necessarily and indeed previously influence its price in continental markets. But there was no evidence of such a fact. While the price of gold was rising here, there was no corresponding rise in the price of gold bullion abroad, as valued in the respective currencies. This was decisively proved by witnesses of great experience, who declared that no alteration in the Mint price of gold in foreign places had occurred, nor had the market prices experienced an advance at all relative to the rise that had taken place in England.

At Hamburgh and Amsterdam, where silver is the measure of value, and not gold, as in this country, an unusual demand for gold would affect its money price, i.e., its price in silver. But no considerable rise in the silver price of gold had occurred at these places in the last year, which proved that there had been no considerable increase in the demand for gold. A certain rise in the market, or silver price of gold, at these places, above its mint silver price, was due to an alteration in the relative values of the two precious metals all over the world. The very same phenomenon had been observed in this country, for some time before the increase of our paper currency, appearing as a fall in the value of silver. Silver having fallen in its relative value to gold all over the world, gold has appeared to rise in price in those markets where silver is the fixed measure, and silver has appeared to fall in those where gold is the fixed measure.

19. If the rise of the market price of gold was at that time to the continental demand to supply the French armies, the very same thing must have happened in former wars, and convulsions of the continent, though perhaps not in so great a degree. During the Seven Years' war, and the American war, Sir Francis Baring very justly observes that no scarcity of bullion was felt in this country. Since the reformation of the coinage in 1773, up to the middle of 1799, two years and a half after the suspension of cash payments, the price of standard bar gold had been steady at £2 17s. 6d., with one very short exception. Except in a very few instances the price of standard bar gold had never been materially above the mint price, for twenty-four years, from the reform of the coinage to the suspension of cash payments. The two most remarkable periods when the market price of gold exceeded the Mint price, was in the reign of William III, when the silver coin was much degraded, and in the early part of the present reign (George III), when the

gold coinage was also much degraded. In both instances the excess of the market price of gold above the mint price, was found to be due to the bad state of the currency, and in both cases the reformation of the currency effectually lowered the market price to the Mint price. During the whole of 1796 and 1797, in which there was such a great demand for gold by the country bankers, to strengthen their position, the market price never rose above the Mint price.

20. The fact of there being a scarcity of gold in this country was very doubtful. Guineas had certainly disappeared from circulation; but that did not prove a scarcity of bullion, any more than the high price did. A large dealer, who spoke much of the scarcity, acknowledged he found no difficulty in getting any quantity of it, if he chose to pay the price for it. Large quantities had certainly been exported to the Continent during the last year; but there had been also very large importations. The changes which had affected Spain and Portugal, together with our own commercial advantages, rendered this country the channel through which the produce of the mines passed to the rest of the world and thus we had the opportunity of supplying ourselves first; and this was the last market which could be affected by a scarcity.

The rise in the market price of silver, which had nearly corresponded with that of gold, could not possibly be ascribed to a scarcity of silver, as the importation of silver had been, of late years, unusually large, while the usual drain for India and China had been stopped.

Thus, there was no evidence of facts upon which certain persons assumed that the rise in the market price of gold was due to an unusual demand, and its consequent scarcity. But even if they did exist, to ascribe the high price of gold to its scarcity involved a very serious misconception.

21. In this country gold is itself the measure of all exchangeable value, and all commodities are said to be dear or cheap, according as more or less gold is given for them. *But a given quantity of gold itself will never be exchanged for a greater or less quantity of gold of the same standard fineness.* At certain times, no doubt, it may be convenient to give more than an equal quantity of gold, to obtain gold in the form of a particular coin; but this difference can never exceed a certain small limit. The price of gold, being itself measured and expressed in gold, cannot be raised or lowered by an increased or diminished demand for it. An ounce of gold will exchange for neither less nor more than an ounce of gold of the same fineness, except so far as the one ounce may be coined, or otherwise manufactured, and the other is not; and the cost of that coinage or manufacture is the limit of the difference. *An ounce of standard gold bullion will not fetch more in our market than £3 17s. 10½d., unless £3 17s. 10½d., in our currency, contains less than an ounce of gold.* A change in the demand for gold will, no doubt, affect all other articles. The same quantity of gold may, at different times, purchase more or less of other commodities: and the price of gold may, in respect to them, be said to rise or fall; but the money—or gold—price of gold itself, must remain unaltered. This, however, is not the present state of things; the prices

of all commodities have risen, and that of gold along with them, and the cause of this can only be found in the state of the currency of the country.

22. The principles which govern the relative prices of gold in bullion and gold in coin, as well as of a paper currency, convertible into it, are very simple: gold bullion is the standard to which the Legislature intends that the gold coin should conform, and be as nearly identified as possible. If this intention were perfectly fulfilled, gold coin would always exactly exchange for the same quantity of other commodities as gold bullion; but it is subject to some small fluctuations, from the expense of converting bullion into coin. This, however, did not exceed £1 per cent., and it was expected that recent improvements would reduce it still lower. This £1 per cent. formed the limit to the possible rise of the value of coin above bullion.

Before the suspension of cash payments in 1797, two circumstances pointed out the causes and the limits of the depression of the coin below the price of bullion. First, the coinage had gradually become worn by use, and if melted down, would produce about £1 per cent. less than its regulated amount of bullion. In the early part of that reign, it had been greatly more serious; but it was now guarded against by the regulation of the statute that if guineas, whose weight when issued from the mint was 5 dwts. 9.440 grns. fell below 5 dwts. 8 grns., they should not be legal tender. The depreciation thus allowed was about 1.11 per cent. Secondly, the law which forbids any but light gold to be melted, and which, with very questionable policy, forbids the gold coin to be exported, or any bar gold, except such as is sworn not to be produced from it. The difference between bar gold which may or may not be sworn off for exportation amounts to about 3s. or 4s. per ounce.

The limit therefore by these two circumstances, which are the only ones that could influence the rate of the difference between the market and the mint price of gold, was about 5½ per cent., and the chief part of this difference was due to the ancient but erroneous policy of this country, which attempted to confine the coin within the kingdom; and thereby to make its value in the market less than it would be without such prohibition. And experience verified these arguments, for the difference between the market and the mint price of gold, while the Bank paid in specie, had never exceeded the limit of 5½ per cent.

23. The experience of Hamburgh fully corroborates these arguments. No difference with regard to silver, analogous to that between the mint and the market price of gold in this country, could ever occur there, because the three causes, which produced that difference here, were provided against there. All large payments at Hamburgh were made in bank money, which was a credit created in the books of the bank, by merchants who deposited silver of a given fineness. Payments were made by transferring a credit from the account of one merchant to another, and thus the wear and tear of the coin was prevented. Unlimited freedom was also given to withdraw, melt, or export it, and thus all the causes which produced a depression of the

value of the coin below bullion were effectually prevented. Thus silver is the only measure of exchangeable value, no difference between coin and bullion can arise, nor any variation in the value of coin, except from those general variations which affect the value of silver in the market of the world.

24. Before the suspension in 1797, the same arguments were generally applicable to gold coin in this country, which had not varied more than 5½ per cent. from bullion. But since that time it had been exposed to a new cause of variation, namely, from the possible excess of an inconvertible paper currency, and the limit of this variation is as indefinite as the possible excess of that paper. In fact gold had ceased to be our measure of value. The currency issued by the Bank of England and country banks, was now our only standard of prices. Its value might vary as indefinitely as its possible excess. But whether this fluctuating paper currency, or gold, was to continue to be the measure of value, the interests of the public demanded that the circulating medium should again be brought, as speedily as possible, to an equality of value with its real and legal standard—gold bullion.

25. The mint price of gold bullion is simply an equivalent weight expressed in coin. If therefore the weight of that coin be lessened, or if its standard be debased, it is then manifestly equal to a less amount of bullion than before. It will require more coin to be equivalent to the same amount of bullion, and, consequently, the market price of bullion will rise above the mint price. If the local currency of this country, being inconvertible into gold, be issued in excess, the market, or paper price of gold, will rise above the mint price. This excess, which can neither be exported to other countries, nor converted into specie, remains in the channel of circulation, and is gradually absorbed by the increasing of the prices of all commodities, exactly in the same manner as a general increase of the supply of the precious metals raises prices all over the world. An increased quantity of this local paper currency raises the prices of all other commodities, bullion included, as expressed in it, and thus the market price of gold, (or the price of gold as expressed in this local currency,) is raised above the mint price, (or the price as expressed in gold itself.) And if the currency of a neighbouring country is not increased in a similar proportion, it is quite clear that the currency of that country in which it has been increased, will fall in relative value as compared to the currency of a country in which it has not been increased, just in the same manner as it does in relation to commodities, and as the quantity of the currency of one country which is of equal value with a quantity of the currency of another country, is called the exchange between those countries, it is quite clear that the exchange will be to the disadvantage of that country in which an undue increase of currency takes place.

Hence the effect of an excessive currency, which is not exportable to other countries, and not convertible into specie, is to cause a general rise in the prices of all commodities, IN THE MARKET PRICE OF GOLD, AND A FALL IN THE FOREIGN EXCHANGE.

II.—As to the State of the Foreign Exchanges.

26. With respect to the state of the foreign exchanges, the Committee had also collected the opinions of persons of great practical experience. Some were of opinion that the depressed state of the exchanges was entirely due to the commercial situation of the country, to the imports, and the payments of subsidies having exceeded the exports. A very eminent continental merchant, however, states that the exchange could never fall lower than the extent of transporting bullion from one country to another, together with an adequate profit in proportion to the risk attending such a transmission; and whatever excess the depression of the exchange has reached within the last fifteen months, beyond that amount must be attributed to the inconvertible paper currency. This witness's evidence was entirely based upon the principle that bullion is the true regulator, both of the value of a local currency, and of the foreign exchanges, and that the free convertibility of paper currency into the precious metals, and the free exportation of those metals, place a limit to the fall of exchange.

27. There is no point of trade, considered politically, which is better settled than the subject of the foreign exchanges. The par of exchange between any two countries are the figures which denote the quantity of their respective currencies, into which an equal quantity of gold or silver bullion can be coined. If twenty-five French livres contained exactly the same quantity of pure silver as 20s., then 25 would be the par of exchange between London and Paris. If one country uses gold for its measure of value, and the other silver, of course the par will fluctuate according to the relative value of the two metals. The rate of exchange produced at any particular time by a balance of trade, or payments between any two countries, is a variation on one side or the other from the real par. But if any change takes place in the currency of one of the two countries, either by the wear or the debasement of a metallic currency, below its standard, or in the discredit of a forced paper currency, or in the excess of an inconvertible paper currency, the real par will be altered: a given portion of one currency having fallen in value, will, of course, no longer be equal to the same portion of the other currency. But though the real par is thus changed, dealers still continue to reckon their course of exchange from the former par; and in this state, a distinction must be made between the *real* and the *computed*, or *nominal*, exchange. The computed or nominal exchange will, of course, include both the difference arising from the state of trade, but also that between the original and the new par. These two differences may, of course, be added to each other, or they may be set off against each other. Thus, whether the balance of trade be for or against a country, whose currency is depreciated, the exchange will appear more unfavorable than it ought to be. In William III.'s time, the exchange between England and Holland was 25 per cent. against England, but the English coinage was degraded more than 25 per cent. below the standard, which proved that the real exchange was in favor of England. If the currencies of both countries are depreciated, the par of exchange will, of course, vary according to their relative value.

28. It has long been settled and understood as a principle, and indeed the truth of the position is so plain, and so uniformly agreed to by all the practical authorities, commercial and political, that the difference of exchange resulting from the state of trade and payments between two countries is limited by the expense of conveying and insuring bullion from one to the other, that the Committee assume it as indisputable. The peculiar circumstances of the country might render the premium a war risk, then even greater than usual, and consequently it was possible that the increased risk might lower the limit of the fall of the exchange, so as to account for its present state.

29. It was undoubtedly proved that, at that period, the risk and the premium on transporting bullion from London to Hamburg did considerably exceed that at any former period. In former times even of war, the cost, including insurance, did not exceed $3\frac{1}{2}$ per cent. It was, however, shewn that at that time this cost had risen to 7 per cent; but it did not exceed that. The risk and cost of sending it to an inland place like Paris, was, of course, somewhat more. It appeared, therefore, conclusively, that the limit by which the depression of the exchanges arising out of the commercial relations of the country, was bounded by 7 per cent. with Hamburg and Holland, and somewhat more with Paris. But the rest of the fall above that limit must be due to some other cause.

30. From the evidence before them, the Committee were of opinion that the real exchange did fall during the last year to nearly its extreme limit, as indicated by the cost of transmitting bullion.

But although the computed, or nominal, exchange may appear to be advanced to the country, a simple calculation will shew what is the state of the real exchange. (EXCHANGES).

A witness, who was strongly wedded to the opinion that the commercial relations of the country might account for any depression of the exchange, however great, was asked to make this calculation. From these calculations it resulted that while the computed, or nominal, exchange with Hamburg was 16 or 17 per cent. below par, the real exchange arising out of the commercial relations, and the balance of payments, was no more than $5\frac{1}{2}$ per cent. against this country; while the nominal exchange with Amsterdam, was about 15 per cent. below par, the real exchange was not more than 7 per cent. below par; and while the nominal exchange with Paris was 20 per cent. below par, the real exchange was no more than $8\frac{1}{2}$ per cent. against this country. Consequently there was a fall of 11 per cent. with Hamburg, of 8 per cent. with Amsterdam, and of $11\frac{1}{2}$ per cent. with Paris, to be explained in some other way. And if the latest statements of the exchange were taken, it might possibly be found that though the nominal exchange was against, the real exchange was in favor of this country.

The foregoing reasonings relating to the exchanges alone made it difficult to resist the conclusion that a portion of the fall of the exchanges was due not to the state of trade, but to a change in the relative value of our currency. But when the fall in the exchange was coupled with the rise in the market price of gold, the inference appeared to be demonstrated.

III. *As to the opinions of the Directors of the Bank of England, and their mode of regulating their issues.*

31. In consequence of the opinion entertained by the Committee that in the artificial state of the currency, it was most important to watch the foreign exchanges, and the market price of gold, they were desirous to learn whether the directors of the Bank held the same opinion, and controlled their issues by them, and also whether the directors, from the great fall in the exchanges, and the rise in the market price of gold during the preceding year, had at all suspected that the currency was excessive.

The directors, however, entirely repudiated such ideas. They, as well as several merchants, who were examined, alleged that the issues of the Bank had no influence on the state of the exchange, or the price of bullion, placing much reliance on the argument that they had been unable to trace any connection between them. Nevertheless the Committee in no way distrusted the principles of general reasoning they had used, because there were so many causes of a temporary and fluctuating nature, that might affect the case that the immediate connection might not be apparent. What they regarded was the *permanent* state of the exchanges.

32. The Committee considered it an error of great practical importance to suppose that the exchanges with foreign countries, and the price of bullion, could not be affected by the amount of an inconvertible paper currency. That excessive issues of paper will lower the foreign exchanges, and raise the price of bullion, was not only proved by the most eminent commercial writers, but its truth has been practically illustrated by the history of almost every state in modern times, which has used a paper currency, and the statesmen in all those countries have finally adopted this principle as the criterion whereby to judge whether the paper currency was excessive.

The history of the paper currencies in the British colonies in North America, during the last century, the assignats of the French Republic, and the paper currency of the Austrian government during the last campaign, and the state of the Portuguese currency, fully bore out the truth of these principles.

33. The United Kingdom itself furnished similar examples. The Report then quotes the derangement of the Scotch currency and the means taken to cure it, narrated in *BANKING IN SCOTLAND*, § 293, also the derangement of the Irish currency and exchange in 1804, narrated in *BANKING IN IRELAND*, § 342—373. It also adduces an instance from the experience of the Bank of England, in 1696. But as this part of the Report is full of the most serious chronological errors, and it is, moreover, one of the very first importance in illustrating the theory of the exchanges and the currency, we have reserved it to the end of the analysis for full and special discussion.

34. The Directors of the Bank of England were not to be altogether blamed if they did not at once perceive the principles upon which so delicate a trust as that which had been committed to them, namely, the regulation of the currency, which had been rather imposed upon them than

sought for by them. But it was material to remark that, while they were subject to pay their notes in specie, the state of the foreign exchanges, and the price of gold did most materially influence its conduct with respect to its issues. While they were liable to pay gold on demand, a fall in the exchange, and a rise in the price of gold, was soon felt by them by a demand upon them for gold. Thus the evil cured itself. The Directors finding their specie reduced, had to replace it at a heavy loss, instinctively curtailed their issues, and thus raised the value of the whole currency, gold as well as paper.

35. The Bank Directors, perhaps, did not fully perceive the operation of these causes, but they unquestionably limited their paper during a drain of gold. This had been several times admitted by them. But the suspension of cash payments exempted them from the drain of gold during an unfavorable exchange, and a high price of bullion; and the directors, feeling no inconvenience, had failed to restore the exchanges, and reduce the price of gold by contracting their issues. The directors of old, perhaps, did not perceive or acknowledge these principles more distinctly than the present ones, but they felt the inconvenience and obeyed its impulse. Under present circumstances no inconvenience is felt, and no contraction takes place. But the committee are most clearly of opinion that so long as the suspension of cash payments is permitted to subsist, the price of gold bullion and the general course of exchange with foreign countries, taken for a considerable period, form the best general criterion from which any inference can be drawn as to the sufficiency or excess of paper currency in circulation. Further, that although the commercial state of the country, and the political state of the continent may have had some effect, yet a view of the facts and reasonings already stated, the present high price of gold, and the depreciation of the foreign exchanges, was to be ascribed to the want of a permanent check, and a sufficient limitation of the paper currency of the country.

36. The Report then proceeds to investigate the theory of currency propounded by Adam Smith, and maintained by the directors, and which had been previously maintained by the committee of 1804, that the issues of the bank could not be excessive so long as they were confined to the discount of good mercantile paper, founded on real transactions. This theory is one of the most plausible and subtle theories ever started, and demands a full investigation. We have reserved it also to the end of the analysis.

37. The committee then pointed out the evils of the usury laws, which are now happily repealed, and therefore we may pass over this part.

The suspension of cash payments had had the effect of entrusting to the Bank of England the duty of supplying the quantity of circulating medium which the public required, a trust which it was unreasonable to expect they could ever discharge. The most detailed knowledge of the actual state of trade, combined with the most profound science in all the principles of money and circulation, could not enable any set of men to do it. When the currency was purely metallic, or composed of paper convertible into specie at the will of the holder, the natural process of

commerce, by establishing exchanges among all the nations of the world, adjusts in every particular country the proportion of circulating medium to its actual occasions. This proportion, so adjusted and maintained by the operation of nature, cannot be adjusted by any human wisdom or skill. No rules can be devised for the discretionary issues of paper currency, though some cautions might be pointed out to check and control its issues. The directors of the Bank had exercised the powers confided to them since 1797, with extraordinary forbearance and moderation, all things considered, but nevertheless the committee was fully convinced that their recent policy involved great practical errors, the effects of a new system, which Parliament should have taken earlier measures to guard against. And when the directors of the bank maintained that their paper could not be in excess if advanced to merchants on good bills, payable at fixed periods, and that it had no effect on the foreign exchanges, or on the market price of bullion, the committee said without hesitation that these opinions must be considered, in a great measure, as the cause of the present state of things.

IV. *As to the issues of the Bank of England and country banks.*

38. The committee then proceeds to notice the great increase that had taken place in the issues of the Bank of England, and country banks. Before 1796, the issues of the Bank had scarcely ever exceeded £11,000,000. But since then they had greatly increased, and the amount in May, 1810, was about £21,249,980. The greatest proportionate increase was in the small notes. They were very rapidly increased from 1799 to 1802, and again from May, 1809 to May 1810. In 1798 they were £1,807,502; in 1802, £3,136,477; in May, 1809, £4,509,470; in May, 1810, £6,161,020. The discounts of the Bank had also enormously increased, but as the Directors did not wish the figures made public, they did not give them, not that discounts by the Bank was anything but a great public advantage, taken by themselves, but it was only an *excess* of currency they were anxious to guard against.

39. But it was a very important principle to state, that the mere numerical amount of bank notes in circulation was no criterion whether these notes were excessive or not. The same amount of paper may be too little at one time, and too much at another. The quantity of currency will vary in some degree with the extent of the trade, and the increase of trade since the suspension may have caused some increase of the currency. *But the quantity of currency bears no fixed proportion to the quantity of commodities, and any inferences proceeding upon such a supposition would be entirely erroneous.* In a state of high public credit, a much smaller amount is necessary than when alarms make individuals call in their advances and hoard. Moreover, a different amount will be required according to the various methods of economizing it, which money dealers devise. The different improvements, which had been recently devised, must have had a greater effect than was commonly supposed in rendering the same sum sufficient for a much greater amount of trade and payments than formerly. These improvements are detailed.

They unquestionably shew that a smaller increase of Bank paper was necessary, to supply the wants of an increased trade, than would otherwise have been necessary, and shew how impossible it is from the numerical amount alone of that paper to pronounce whether it is excessive or not; a more sure criterion must be resorted to; AND SUCH A CRITERION IS ONLY TO BE FOUND IN THE STATE OF THE EXCHANGES, AND THE PRICE OF GOLD BULLION.

40. The crises of 1793 and 1797 throw much light on this last principle. In 1793, the distress was caused by a failure of confidence in the country currency, and a consequent pressure upon that of London. The Bank of England refused to enlarge its issues, and the notes that were in circulation were hoarded through panic. In this crisis a loan of Exchequer bills was made to all merchants who had good security to offer. The confidence this measure produced as well as the increased means of obtaining Bank notes by the sale of the bills, speedily relieved the distress both in London and the country. The effect of this was similar to an increased issue of notes. Without approving of the particular method in which this operation was done, it is an important illustration of the principle, THAT AN ENLARGED ACCOMMODATION IS THE TRUE REMEDY FOR THAT OCCASIONAL FAILURE OF CONFIDENCE IN THE COUNTRY DISTRICTS TO WHICH OUR SYSTEM OF PAPER CREDIT IS UNAVOIDABLY EXPOSED.

41. The circumstances of 1797 were very similar to those of 1793, and an effectual remedy for the panic might perhaps have been provided, if the Bank of England had had courage to extend, instead of restricting its accommodation, and issues of notes. Some few persons thought so at the time; and the Governor and Deputy-governor of the Bank stated to the Committee that they and many of the Directors *are now satisfied from the experience of the year 1797, that the diminution of their notes on that emergency increased the public distress; an opinion in the correctness of which the Committee entirely concur.*

42. The experience of 1793 and 1797, contrasted with the facts stated in the Report, suggests a distinction most important to be kept in view, between the demand upon the Bank for gold for internal circulation, arising from a temporary failure of confidence, sometimes very great and sudden, and a drain arising out of the unfavorable state of the exchanges. The former, while the Bank maintains its high credit, seems likely to be best relieved by a judicious increase of accommodation to the country; the latter, so long as the Bank does not pay in specie, ought to suggest to the Directors, a question whether their issues may not be already too abundant. But it is essentially necessary that any reduction that might be deemed necessary, should take place very cautiously and gradually.

43. The country bank paper was a superstructure reared on the basis of the Bank of England paper, into which it is convertible. But any enlargement of the basis necessarily caused an enlargement of the superstructure. The committee had not been able to ascertain exactly the positive amount of increase, but it had unquestionably been very large. As they had before observed, no certain conclusion could be drawn from the actual amount, without reference to

other circumstances; yet the fact of a great increase, coupled with all the indications of a depreciated currency did afford very strong evidence that the issues were not restrained within proper limits.

44. The country banks had been able to create and issue about £5,000,000, at an expense to themselves of not more than £100,000, which was thrown into the channel of circulation, the value of which in exchange for all other commodities is gradually lowered in proportion as the mass is augmented. If so unnatural a state of things was to continue, the state ought to participate more largely in the profits of the issue. But that was not a policy they were disposed to recommend. And just as they agreed with Adam Smith, and all the most able writers and statesmen of this country, in considering a paper currency, constantly convertible into specie, as one of the greatest practical improvements which can be made in the political and domestic economy of any state, and in regarding country banks issuing such paper, a most valuable institution, so they were anxious to revert to the former state and practice in these things any systematic departure from which would lead to many calamities, among other things the destruction of the system itself.

45. Upon the whole, then, the committee are of opinion that there is at present an excessive paper currency, of which the most unequivocal symptom is the present high price of bullion, and next to that, the low state of the foreign exchanges, which was owing to the want of a due control in the issues of the Bank of England. No permanent or adequate provision against an excess of paper currency can be found, except in the convertibility of such paper into specie. It was greatly to be regretted, therefore, that the suspension of cash payments, which was only intended to be temporary, should have been continued as a permanent war measure.

46. The evils which would result from such an excess of currency as causes its depreciation, are universal, and weigh upon all classes of society; and the honor of Parliament is concerned not to allow in this commercial country a system of currency, which has no fixed value, and which destroys the faith of all money contracts, and obligations between man and man. The longer it was continued, the greater was the temptation to resort to a depreciation of the gold coin by altering its standard. Many governments had done so, and it was an obvious remedy. But it would be a most manifest breach of public faith, to reduce the coin to the value of the paper, rather than to restore the paper to the legal standard of the coin.

47. Many palliatives, or remedies, for the present state of things had been proposed, but the Committee are of opinion they are all useless, inadequate, and mischievous, and that there is only one sufficient and efficacious remedy, namely—a restoration of payments in cash as speedily as possible. No doubt such a measure as this required to be done with considerable caution, but all difficulties might be provided against, by entrusting the charge of the operation to the Bank of England, and allowing it sufficient time to do so, so as not to embarrass public and commercial credit. Two years appear to the Committee a reasonable time, and they are of opinion that

Parliament should terminate at that period the Acts which authorize the restriction. By the present law, the period of the resumption of cash payments stood limited to six months after a general peace; but even if peace were declared within that period, the Committee, having regard to the difficulty and danger of reducing its issues from their present amount, would still recommend that the Bank should not be compelled to resume before two years.

48. Such is a summary of this celebrated Report. Its reception by Parliament is narrated in *BANKING IN ENGLAND*, § 159. We shall not in this place give any account of the debate on the doctrines maintained in opposition to it, either in Parliament, or the flood of pamphlets it called forth, as we have done that under the respective names,—*HORNER, HUSKISSON, BOSANQUET, VANSITTART, ROSE, THORNTON, &c., &c.* There are, however, two parts of the Bullion Report which we have already said required fuller notice; the one because it relates to a very important crisis in our currency, which will illustrate some of the fundamental principles of currency and exchange, and the other because it investigates a very important and subtle theory of paper currency.

On the account of the Currency Crisis of 1696-97, in the Bullion Report.

49. One of the examples adduced by the Bullion Report to shew the effects of excessive paper issues on the foreign exchanges, is the monetary crisis of 1696-97, as follows: "The experience of the Bank of England itself, within a very short period after its establishment, furnishes a very instructive illustration of all the foregoing principles and reasonings. In this instance, the effects of a depreciation of the coin by wear and clipping were coupled with the effect of an excessive issue of paper. The Directors did not at once attain a very accurate knowledge of all the principles by which such an institution must be conducted. They lent money not only by discount, but upon real securities, mortgages, and even pledges of commodities not perishable; at the same time, the Bank contributed most materially to the service of Government for the support of the army on the Continent. By the liberality of those loans to private individuals, as well as by the large advances to Government, the quantity of the notes of the Bank became excessive, their relative value was depreciated, and they fell to a discount of 17 per cent. At this time, there appears to have been no failure of the public confidence in the funds of the Bank; for its stock sold for 110 per cent., though only sixty per cent. upon the subscription had been paid in. By the conjoint effect of this depreciation of the paper of the Bank from excess, and of the depreciation of the silver coin from wear and clipping, the price of gold bullion was so much raised, that guineas were as high as 30s.; all that had remained of good silver gradually disappeared from circulation; and the exchange with Holland, which had been before a little affected by the remittances for the army, sunk as low as 25 per cent. below par, when the bank-notes were at a discount of 17 per cent. Several expedients were tried, both by Parliament and the Bank, to force a better silver coin into circulation, and to reduce the price of guineas, but without effect. At

length, the true remedies were resorted to; first, by a new coinage of silver, which restored that part of the currency to its standard value, though the scarcity of money occasioned by calling in the old coin brought the Bank into straits, and even, for a time, affected its credit; secondly, by taking out of the circulation the excess of bank-notes. This last operation appears to have been effected very judiciously. Parliament consented to enlarge the capital stock of the Bank, but annexed a condition, directing that a certain portion of the new subscriptions should be made good in bank-notes. In proportion to the notes sunk in this manner, the value of those which remained in circulation began presently to rise; in a short time, the notes were at par, and the foreign exchanges nearly so. These details are all very fully mentioned in authentic tracts published at the time, and the case appears to your Committee to afford much instruction upon the subject of their present inquiry." The only tracts quoted by the Report are *A short Account of the Bank*, by Mr. Godfrey, one of the original directors, and *A short History of the last Parliament*, 1699, by Dr. Drake.

50. There is no person possessed of the slightest knowledge of banking and monetary science who would not see at once that there is some gross blunder in the preceding passage; for it evidently asserts that *while the Bank was paying in specie, its notes fell to, and continued at, a discount of 17 per cent.* which every economist knows to be impossible in the nature of things. The only tracts quoted by the Committee are those mentioned above, though they refer to others. We have no hesitation in saying that this passage contains nothing but a mass of blunders, historical, chronological, and scientific, which we shall fully investigate, on account of the important bearing of the crisis on the theory of the currency and the exchanges.

This passage may be said to contain the following allegations:

1. That very soon after the foundation of the Bank, it made excessive issues.
2. That in consequence of these excessive issues, *and while they continued to pay their notes in specie on demand*, their notes fell to 17 per cent. discount.
3. That in consequence of these excessive issues of paper by the Bank, and the depreciation of the silver coin by wear and clipping, guineas rose to 30s. from 21s. 6d., and that the remaining good silver disappeared from circulation.
4. That in consequence of the two preceding causes, exchanges with Holland rose to 25 per cent. against England.
5. That many attempts were made by the Bank and Parliament to reduce the price of guineas, and force a better silver coinage into circulation, which all failed.
6. That measures were at length resorted to, of calling in the old silver coinage, and re-issuing it at full weight, and taking the excessive issues of the Bank out of circulation, which were finally successful, restored the exchanges and the bank-notes to par.

We must now examine each of these propositions separately.

With respect to the first, what is or what is

not an excessive issue, is a matter of so much speculation, that it is quite impossible to affirm or deny it.

With respect to the second allegation, there is not only *no* evidence in its favor in the pamphlets quoted, but the most overwhelming evidence against it. Mr. Godfrey's pamphlet was written in June, 1695, when the credit of the Bank was in the most flourishing condition, when he makes this credit a matter of great boast; and he says that the only reason why the credit of the bank-notes was so good, was that their holders knew that they could get their money *instantly on demand for them*. Mr. Godfrey was killed at Namur in July, 1695, and bank-notes were not at a discount till May, 1696. We have given a full abstract of this pamphlet, to which we may refer (GODFREY), by which it will be seen that it lends no support to the allegation of the Report.

With respect to the third allegation, we have given, in the article COINAGE, abundance of extracts of the most authoritative nature from contemporary pamphlets, and from the Journals of the House of Commons, proving that guineas were at 30s in the early part of 1695, when the credit of the Bank was unimpeached, when all its notes were paid on demand, and FOURTEEN months BEFORE the stoppage in May, 1696, which caused the notes to fall to a discount.

The same reasoning is true of the fourth allegation. The exchange with Holland was 25 per cent. against England in the early part of 1695, and as stated by contemporary pamphlets, (COINAGE), was due to the same cause as the high price of guineas, namely, the bad state of the silver coinage.

The fifth allegation is entirely erroneous. Parliament made no attempt to reduce guineas till February, 1696 (COINAGE), when the silver coinage had been already called in.

The sixth allegation involves great chronological errors, into which the Committee were led by Dr. Drake; for they make it appear that the foreign exchanges were restored to par first, and then the bank-notes; or, at all events, that these two results were effected simultaneously. And for this they have the authority of Dr. Drake's tract (DRAKE). But Dr. Drake was a clergyman, and probably not very well versed in commercial matters. Moreover, he wrote some years after the event, when these minute dates, of whose importance he was probably not sufficiently aware, became confounded. But we have shewn by extracts from a contemporary and mercantile writer, John Cary (CARY), that the exchanges were restored to par in October, 1696, and that bank-notes were not brought to par till towards the end of 1697, as may be seen by the extracts we have given from Narcissus Luttrell's diary (LUTTRELL). In fact, all contemporary evidence proves that as the fall in the foreign exchanges and the rise of the market price of bullion was owing entirely to the badness of the coin, so the restoration of both to par was owing entirely to the restoration of the coinage, and had nothing whatever to do with the bank-notes. In fact, the fall of the bank-notes was due entirely to the stoppage of the Bank of England in May, 1696, which the Bullion Report seems to be unaware of, and had nothing to do

with the fall in the exchange or the rise in the price of bullion. But, nevertheless, this crisis is a classical example of the truth of the principle of the Report, which, indeed, is a self-evident truism, as soon as the nature of the thing is truly apprehended; namely, that a depreciation of the medium in which payments are made causes a rise in the apparent price of bullion, and a nominal fall in the foreign exchanges, a principle which was perfectly well understood by the ablest merchants and statesmen of 1696.

Investigation of the Theory of basing a Paper Currency on the Discount of Mercantile Bills.

51. We shall now examine the way in which the Bullion Report endeavours to refute an extremely plausible and subtle theory of paper currency.

The chapter on *Metallic and Paper Currency* in the "*Wealth of Nations*," will unfortunately be found, on a close critical examination, to contain many inconsistent and erroneous doctrines, which we cannot examine at proper length here. But it contains two principles which have acquired some celebrity. One is expressed in the following dogma. "The whole paper money of every kind which can easily circulate in any country, never can exceed the value of the gold and silver of which it supplies the place, or which (*the commerce being supposed the same*) would circulate there, if there was no paper money." Now it will be observed that this dogma is laid down *with a condition*. Adam Smith only asserts it on the supposition that *the commerce remains the same*. But many modern writers of influence, wholly dropping the condition, or qualification out of view, assert it as an absolute dogma, *that when paper notes are allowed to be issued, they should be exactly equal in quantity to the metallic currency they displace*. This, however, is a doctrine much older than Adam Smith, because it is mentioned by John Law. This is the doctrine generally known at the present day by the name of the CURRENCY PRINCIPLE. It is quite clear, however, that the modern supporters of it commit what is called in logic, the fallacy *A dicto secundum quid, ad dictum simpliciter*, that is, they jump from an assertion made with a qualification to an absolute assertion. If the commerce remains the same, Adam Smith's assertion may have some shew of plausibility, but then there is no necessity that the commerce should remain the same. Adam Smith had already shewn himself that the creation of bank notes increases commerce. In a subsequent part of the same chapter he says, "When a bank discounts to a merchant a real bill of exchange drawn by a real creditor upon a real debtor, and which as soon as it becomes due, is really paid by that debtor, it only advances to him a part of the value which he would otherwise be obliged to keep by him unemployed, and in ready money for answering occasional demands." This passage is the origin of that theory of currency which the Bullion Report investigates and condemns, namely, "*That when the Bank only discounts good bills of exchange founded upon real transactions it cannot issue notes in excess*." This theory was strongly brought before the Irish Currency and Exchange Committee, in 1804, but it was not noticed by them. It was also strenuously asserted before

the Bullion Committee, in 1810, and we shall now present to our readers what the Report says of it.

52. Your committee cannot help again calling the attention of the House to the consequences which have resulted from the peculiar situation in which the Bank of England was placed by the suspension of cash payments. So long as the paper of the bank was convertible into specie at the will of the holder, it was enough, both for the safety of the bank and for the public interest, in what regarded its circulating medium, that the directors attended only to the character and quality of the bills discounted, as real ones, and payable at fixed and short periods. They could not much exceed the proper bounds in respect of the quantity and amount of the bills discounted, so as thereby to produce an excess of their paper in circulation, without quickly finding that the surplus returned upon themselves in demand for specie. The private interest of the bank to guard themselves against a continued demand of that nature, was a sufficient protection for the public against any such excess of bank paper as would occasion a material fall in the relative value of the circulating medium. The restriction of cash payments, as has already been shewn, having rendered the same preventive policy no longer necessary to the bank, has removed that check upon its issues, which was the public security against an excess. When the bank directors were no longer exposed to the inconvenience of a drain upon them for gold, they naturally felt that they had no such inconvenience to guard against, by a more restrained system of discounts and advances; and it was very natural for them to pursue as before (but without that sort of guard and limitation which was now become unnecessary to their own security), the same liberal and prudent system of commercial advances, from which the prosperity of their own establishment had resulted, as well as in a great degree the commercial prosperity of the whole country. It was natural for the bank directors to believe that nothing but benefit could accrue to the public at large, while they saw the growth of bank profits go hand in hand with the accommodation granted to the merchants. It was hardly to be expected of the directors of the bank that they should be fully aware of the consequences that might result from their pursuing, after the suspension of cash payments, the same system which they had found a safe one before. To watch the operation of so new a law, and to provide against the injury which might result from it to the public interests was the province not so much of the bank as of the legislature; and in the opinion of your committee there is room to regret that this House has not taken earlier notice of all the consequences of that law.

"By far the most important of these consequences is that while the convertibility into specie no longer exists as a check to an over issue of paper, the bank directors have not perceived that the removal of that check rendered it possible that such an excess might be issued by the discount of perfectly good bills. So far from perceiving this, your committee have shewn that they maintain the contrary doctrine with the utmost confidence, however it may be qualified occasionally by some of their expressions. That this doctrine is a very fallacious one, your committee

cannot entertain a doubt. *The fallacy upon which it is founded lies in not distinguishing between an advance of capital to merchants, and an additional supply of currency to the general mass of circulating medium.* If the advance of capital only is considered, as made to those who are ready to employ it in judicious and productive undertakings, it is evident that there need be no other limit to the total amount of advances than what the means of the lender, and his prudence in the selection of borrowers, may impose. But in the present situation of the bank, entrusted as it is with the function of supplying the public with that paper currency which forms the basis of our circulation, and at the same time not subjected to the liability of converting the paper into specie, every advance which it makes of capital to the merchants in the shape of discount, becomes an addition also to the *mass of circulating medium*. In the first instance, when the advance is made by notes paid in discount of a bill, it is *undoubtedly so much capital*, so much power of making purchases placed in the hands of the merchant, who receives the notes; and if those hands are safe, the operation is so far, and in this its first step, useful and productive to the public. But as soon as the portion of circulating medium, in which the advance was thus made, performs in the hands of him to whom it was advanced, *this its first operation as capital* as soon as the notes are exchanged by him for some other article which is capital, they fall into the channel of circulation as *so much circulating medium*, and form an addition to the mass of currency. The necessary effect of every such addition to the mass, is to diminish the relative value of any given portion of that mass in exchange for commodities. If the advance was made by notes convertible into specie, this diminution of the relative value of any given portion of the whole mass would speedily bring back upon the bank which issued the notes, as much as was excessive. But if by law they are not so convertible, of course this excess will not be brought back, but will remain in the channel of circulation until paid in again to the bank itself in discharge of the bills which were originally discounted. During the whole time they remain out they perform all the functions of circulating medium, and before they come to be paid in discharge of these bills, they have already been followed by a new issue of notes in a similar operation of discounting. Each successive advance repeats the same process. If the whole sum of discounts is progressively increasing, the amount of paper which remains out in circulation over and above what is otherwise wanted for the occasions of the public, will progressively increase also, and the money prices of commodities will progressively rise. This progress may be as indefinite as the range of speculation and adventure in a great commercial country."

53. Such is the reasoning of the Bullion Report, to shew the fallacy of an extremely subtle and plausible theory of paper currency. It was decisively condemned by Mr. Horsley Palmer, before the Bank Charter Committee of 1832. The conclusions of the Committee are perfectly just, but the expressions are in some respects ambiguous—in some inaccurate—and altogether the reasoning is inadequate to effect its purpose of demonstrating the fallacy of the doctrine. The

expression "good bills" is one which we shall shew is very ambiguous. The Report has further been clouded by the false distinction between "capital" and "circulating medium;" for circulating medium, or currency, is sometimes "capital," and sometimes not, according to the method in which it is employed. (CAPITAL). The Report, however, recognizes this doctrine that *the same thing is, or is not, capital according to the way in which it is used*. Again, the Report is in error in assuming that the necessary effect of every addition to the currency is to diminish the value of the whole mass; because the value of the currency is always proportionate to the work it has to do; and it is only a change in the proportion between the currency and the work that it has to do, that causes a change in its value. Nor could the very small amount of currency added to the mass, in so short a time as during the *échance* of the bills that were discounted, have any effect on general prices.

54. We shall find that by starting from our fundamental conception of currency as transferable debt, and that the value of the currency depends upon the quantity of transferable debt it represents, the fallacy of this theory can be demonstrated with great ease and simplicity, and the mischievous consequences which followed from it, explained. When the merchant A comes to the bank, to discount the acceptance of B, it is a sale of the debt to the bank. The bank buys a debt payable at a fixed time after date, with its notes, which are so many small debts payable to bearer on demand, while the notes are convertible. The transaction is simply an exchange of debts. At the appointed time, it is B's duty to take a quantity of currency to the bank, and discharge his debt. He does this either in coin or in the bank's own notes. If he pays his own debts by the bank's notes, it is simply a re-exchange of debts between him and the bank; he extinguishes his own debt to the bank, and at the same time an equal quantity of the bank's debt is taken out of circulation, and extinguished. Consequently the proportion existing previously between the currency and the quantity of debt it represents, remains unaltered. If the merchant discharges his debt partly in coin and partly in notes, or wholly in coin, the same result follows; the notes which remain out in circulation still represent the same amount of debt—the notes and coin being independent quantities, it makes no difference to the whole mass, which is removed out of circulation. But let us suppose that the acceptor fails to meet his engagement, and cannot pay his debt. Then the debt due to the bank is lost and extinguished; but the debt *against* the bank remains. And the bank, while its notes are payable to bearer on demand, must pay this debt out of its remaining capital. Still, however, though this is loss of capital to the bank, as the notes are taken out of circulation, the value of the notes remaining in circulation will not be affected. But now let us suppose the notes to be inconvertible, then, as before, if the acceptor pays the debt, the notes will be taken out of circulation, and extinguished simultaneously with the debt which they purchased, and the value of those remaining in circulation will not be altered. But suppose that the acceptor fails, and cannot pay his debt, then that

debt is extinguished; but the notes issued in the purchase of it remain in circulation, and are a mere addition to the circulating medium already existing, without any corresponding increase of the debt it represents. It would have exactly the same practical effect as if, for every good bill of £1,000, the Bank were to issue an excess of currency—say £1,500, for example; and when the bill was paid, only £1,000 would be taken out of circulation, and the remainder—£500—would remain in circulation. This residuum as we may call it, would go to swell up the existing quantity of circulating medium, and depreciate the value of any given portion of it, exactly in the same way as a constant increase in the gold currency would gradually cause a diminution in its value. Every such operation, therefore, alters the proportion between the currency and the debt it represents; and though, no doubt, a few unsuccessful operations of this sort would not have any sensible effect in changing its value, yet a repeated succession of them must necessarily do so ultimately, just as adding a drop of water in a bucket may not perceptibly increase the height of the water, yet a continued series of drops will at length cause the water to overflow the bucket; so a continued series of such operations under an inconvertible paper currency, must necessarily result in a serious diminution in the value of the whole.

55. But it may happen that, even though the merchant pays his debt, and no loss of capital ensues to the bank, yet it may be a loss of capital to him. Thus, when he bought the goods on credit, and gave his acceptance for them, which was purchased by the bank, he meant to employ those goods as *capital*—that is, he bought them for the purpose of selling them again, with a profit. If he succeeds in this object, and sells them to advantage, he pays his acceptance out of the proceeds realised by the goods, and his capital is increased more or less, according to the greater or less advantage he sells them at. But if he has made a miscalculation, and sells the goods at a loss, he must still make good his debt to the bank out of his remaining capital; and such a transaction is a loss of capital to him. But every loss of capital to an individual is a loss of capital to the whole community. (J. B. Say has also remarked this: "Un mauvais spéculateur est aussi fatal à la prospérité générale qu'un dissipationnaire."—*Traité d'Economie Politique*, p. 445, Edit. Guillaumin). And the great general result to the community is absolutely the same, whether the loss of capital accrues to the individual, or to the bank. The quantity of currency remains the same; but what it represented is diminished. Consequently, every unsuccessful operation in trade alters the proportion between the currency and the quantity of what it represents; and therefore every unsuccessful operation *necessarily* tends to diminish the value of any given amount of the whole currency; unless some means can be devised by which a certain quantity of it can be removed from circulation, and so raise its value. Now the diminution in the value of the currency inevitably shews itself in process of time, by a general rise in prices. It may do so gradually and imperceptibly at first; in the hourly variations of prices, it may not, perhaps, be perceived at first; just as when the waves are

breaking on the shore, it is impossible to tell whether the great tide is advancing or receding; but if it continues for any length of time, all traders begin to feel it instinctively. It is impossible, perhaps, to point out the precise influence in any particular transaction; but yet it makes itself felt in commercial operations, by a general rise in prices. The fact is, that when the operation was done, and the production exposed for sale, it was expected and calculated that a certain portion of currency would be appropriated to its purchase. But if people do not want the article, that portion of currency is not appropriated to its purchase; the producer loses his capital, and the currency remains in circulation; and the increased quantity of it gradually enters into the prices of other commodities, aggravating them and swelling them up. Now, when this is the case—when the currency is made of a material which has universal value, nature herself provides the remedy. When commodities rise in price in this country beyond their prices in foreign countries, besides the cost of transporting them here, they will be imported, and the extra quantity thrown upon the market diminishes their price, both by altering the ratio of supply and demand, as well as by removing the quantity of currency necessary to pay for them, from circulation, until the general equilibrium is again restored between commodities, currency, and what it represents. But if the currency be made of a material which has only a local value, like paper, this great restoring process of nature cannot take place. The quantity of currency remains the same, while the debt it represents is diminished. The consequence is a general diminution in the value of the whole currency—all that portion of the currency which has universal value is driven out of circulation—then follows a great rise in the market price of bullion, and as a necessary consequence, a fall in the foreign exchanges.

56. The preceding observations enable us to affix a definite meaning to an expression which is very common in all currency discussions, namely, *over-issues*. We have never seen any attempt to define what an over-issue is, and yet it is a phrase in constant use. Now, over-issues in general must consist of specific instances of over-issue in particular cases. Now, from the preceding considerations, the sense we affix to the expression "over-issue," is an advance made upon an unsuccessful operation, or the "purchase of a bad debt." Every quantity of currency advanced to promote an unsuccessful operation, or which purchases a bad debt, alters the proportion between the currency and the debt it represents. Each specific instance, then, of such an operation is an "over-issue," and the expression "over-issue" or "excessive issue" has no other meaning.

57. The foregoing considerations also shew the fallacy of the expression "good bills." In a banker's sense, a "good bill" means simply a bill which is duly paid by the proper party at maturity. It is not the smallest consequence to him whether the transaction out of which it originated is a profit or a loss to the person who incurred the obligation, as long as he is paid. But if the expression "good bill" be taken in a more extended and philosophical sense, to denote a bill upon which it is safe to issue currency, it is a very different matter indeed; for then a "good

bill" can only mean one generated by a successful operation. And these views are entirely borne out by the course of the Bank of England and the country banks subsequent to the Bullion Report. It was contemptuously rejected by Parliament, and what was the consequence? The years which followed it were those of excessive speculation in all branches of commerce, which it is well known were followed by immense losses, and the paper currency, which was issued to advance these unsuccessful operations kept continually falling to a heavier discount, until an immense destruction of these currency issuers took place in 1816, and the quantity of the paper currency that was thus destroyed, raised the value of the remainder to par, or within a very small fraction of it.

58. The preceding considerations, too, shew the excessive danger of making the *Wealth of Nations* a text book of Political Economy at the present day, by those who have not followed minutely the stream of discussion since it was published. The chapter, from which this theory is taken, has always been referred to as one of conspicuous excellence in that work, and yet if it be examined with that critical minuteness which a work of science demands, it will be found that its eminent author had never made himself master of the details of Banking, and that it contains two theories which are inconsistent with each other, and both of which are erroneous.

On the objections of Mr. James Deacon Hume, and Mr. Tooke to certain allegations in the Bullion Report.

59. The Bullion Report called forth clouds of hostile pamphlets, which stoutly denied the fact of the depreciation of the Bank Note. These we shall pass over without notice, because the reasoning of the Report on its main point, was so conclusive, that when fairly weighed by competent and impartial men, it was sure to come triumphant out of the discussion. This is just what happened. In 1811, the immense majority of the commercial world rejected it, in 1819, the whole commercial world adopted it, with scarcely a dissentient voice. The main fact, therefore, of the depreciation of the Bank Note is now acknowledged to have been proved beyond cavil or dispute.

But two eminent Economists who are thoroughly attached to its general principles, namely Mr. James Deacon Hume and Mr Tooke, have brought objections of a very grave character against some of its assertions, and as these objections are well founded, we must state them.

60. In the speech of Mr. Horner, introducing the resolutions founded on the Bullion Report in the House of Commons, he maintained that corn was the best measure of Value. (HORNER.) When therefore he saw the extraordinary price to which corn had reached in 1810, and 1811, he assumed that as a convincing proof of the depreciation of the currency, in addition to the rise in the market, or paper, price of gold bullion. And without enquiry, as we have seen above, the Report assumes that a depreciation of the currency would cause the price of all commodities to rise. The framers of the Bullion Report looking only at the prices of corn and meat, found that they had greatly risen, and they assume, and state, that the prices of *all* commodities had risen.

61. Now there was no evidence adduced on that point. There was no general inquiry made into the prices of *all* commodities, and Mr. Hume and Mr. Tooke, upon inquiry into the facts of the case, have satisfactorily proved that the statement is wholly unfounded. Mr. Hume, to whom so many practical economical reforms are due, (HUME, JAMES DEACON,) addressed several letters under the signature of H. B. T. to the *Morning Chronicle*, in the winter of 1833-34, which have been republished in his recent memoirs by Mr. Badham. One of these (*Life*, p. 99,) touches upon the question of depreciation. "It is a most extraordinary thing that the people of England should have so strangely mystified themselves on the subject, as to have imbibed a general impression, that all things were dear during the time that gold was dear; for there never was a greater mistake, and yet no man speaks ten sentences upon the *currency question* without talking of the high 'war prices' as applicable to all commodities. Some descriptions of goods were certainly exceedingly dear; but then others were most oppressively cheap; and the characteristic line to be drawn between them will be found to be a very curious one, when we come to examine the distinction with reference to the question at issue." And Mr. Tooke, in Vol. IV p. 113 of his invaluable *History of Prices*, gives a table of the prices of a long list of articles, which had immensely fallen in 1811, from what they had been in several preceding years. How then, say these excellent writers, can the Bullion Report assert that the prices of all commodities had risen in the face of the undoubted fact that an immensely large list had oppressively fallen? And by which class of articles are we to judge of the depreciation?

62. The objection to the assertion of the Bullion Report is unanswerable, and yet it is not a conclusive answer to the principles of the Report. The reply is obvious—granting that the nominal or paper price of these articles had fallen, still if the currency had not been depreciated, the price would have fallen still lower. Even in the depressed state in which they were, their prices were still above their proper level.

63. But the fact is, the error lay with the Bullion Report in mixing up two distinct tests of the depreciation of the currency, one of which is extremely simple and perfectly conclusive; but the other is extremely complicated, and by no means conclusive. The variations of the prices of commodities are so complex, and are influenced by so many obscure causes, that except in very extreme cases, (like those of the French Assignats, and the American continental money) it is a very dangerous argument indeed to draw any conclusion as to the depreciation of a paper currency from the price of commodities in the first instance.

64. In fact, the Bullion Report lays itself open to a retort from those who held the general opinion then held, and expressed by Mr. Chambers, who said that he did not consider gold a fairer standard to estimate the value of the bank-note than indigo or broadcloth, or any other commodity.

65. But the real criterion in the case, and the only one on which certain reliance can be placed, was well expressed by Mr. Marshall before the

Irish Exchange Committee in 1804 (*BANKING IN IRELAND*, § 355). "*Bank-notes are issued as a promise to be equal to gold currency, and they must follow all the variations of the value of gold, par passu, whatever they are.*"

66. Hence the Bullion Report should have confined itself to the establishment of the fact of the difference in the paper, and the money, price of gold bullion. And the next point should have been to ascertain whether there was a difference in the prices of commodities generally, throughout the country, between payments made in paper or gold. These are the real criteria on the subject; and there was abundant evidence brought forward in the debate on the report, that in the sale of commodities generally, there was then actually existing a difference between the paper and the money price. The whole force of the evidence should have been thrown on that point, and if this had been shown, as it undoubtedly might, it would have proved beyond cavil and dispute the fact of the depreciation.

Does the Bank Act of 1844 carry out, or is it in accordance with, the principles of the Bullion Report?

67. We shall now investigate a question of the utmost importance. Every one knows that the supporters of the Bank Act of 1844 strenuously maintain that it is the complement of the Act of 1819, and in strict accordance with the principles of the Bullion Report. We shall now endeavour to estimate the correctness of this assertion.

68. We need scarcely remind our readers that the Bank Act of 1844 strictly limits the power of issue of the Bank to £14,000,000 (since slightly augmented in consequence of the discontinuance of other issuing banks), together with an equal quantity of notes to the bullion in its possession. It thus specially prohibits any excess beyond that amount under any circumstances whatever; and though the amount no doubt varies, it is strictly limited.

69. Is this in accordance with the principles of the Bullion Report?

There is no one who has read the preceding analysis, but can fail to see that it is in diametrical opposition to several of its fundamental doctrines.

I. The Bullion Report, after discussing the two most important commercial crises which had occurred before its time, namely, those of 1793 and 1797, declares its opinion that the excessive limitation of discounts at those times greatly aggravated the distress, and says that in certain crises to which our paper credit is exposed, an *enlargement of accommodation* is the true remedy, and that too severe a contraction may lead to general ruin.

In the crisis of 1825, this very severe contraction was attempted, and the country was just on the brink of general ruin, when the Bank enlarged its accommodation, and the country was saved.

The Bank Act of 1844 strictly prohibits this enlarged accommodation in times of commercial crisis.

In 1847 there was a great commercial crisis. At last, it was felt that if the Act of 1844 was not set aside, general ruin would follow. The Act was set aside, an enlarged accommodation

took place, in accordance with the doctrine of the Bullion Report, and the commercial world was preserved from ruin.

In the still greater crisis of 1857, it was again felt that the maintenance of the Act of 1844 for twenty-four hours longer would have brought universal ruin on the commercial world; it was again set aside, and the doctrine of the Bullion Report again reverted to.

Is the Bank Act of 1844 in accordance with the doctrine of the Bullion Report?

70. II. The Bullion Report declares that the mere numerical amount of notes in circulation at any time is no criterion whether the notes are excessive, or not.

The theory of the supporters of the Act is, that the notes in circulation ought to be exactly equal to what the gold coin would be if there were no notes, and any quantity above that is an excess and a depreciation of the currency.

Is this principle of the supporters of the Act in accordance with the principles of the Bullion Report?

71. III. The Bullion Report declares that the sole criterion of the depreciation of the paper currency is to be found in the price of gold bullion, and in the state of the foreign exchanges.

According to the supporters of the Bank Act, the true criterion is whether the paper exceeds the quantity of coin it displaces.

Is the theory of the supporters of the Bank Act in accordance with the doctrine of the Bullion Report?

72. IV. It was proposed as a remedy to the Bullion Committee, that a positive limit should be placed on the issues of the Bank. The Bullion Report specially condemns any positive limitation of the issues.

The Bank Act of 1844 specially limits the issues of the Bank.

Does the Bank Act of 1844 coincide with the principles of the Bullion Report?

73. On these fundamental points, therefore, the Bank Act of 1844 is in direct opposition to the principles of the Bullion Report, and we think that ample experience has proved the greatly superior wisdom of the Bullion Report.

74. The following principles are not only maintained in the Bullion Report, but were adopted by all the most eminent authorities of the period, and especially by the framers of the Act of 1819; and, we believe, contain the true principles of the subject.

I. That there are periods of commercial crisis when an enlarged accommodation is the true remedy.

II. That at such periods an absolute limit of the issues of the Bank greatly aggravates the crisis, and if continued beyond a certain time, will certainly bring on universal ruin.

III. That the numerical amount of notes in circulation is no absolute criterion of their excess.

IV. That the true criterion of the paper currency is to be found in the state of the foreign exchanges and in the price of gold bullion.

V. We have shewn that it was the neglect of this latter law that has been one of the main causes of those dreadful commercial crises in this country. (CRISIS, COMMERCIAL.)

VI. That the true controlling power of the paper currency, or credit, is to be found in the

RATE OF DISCOUNT, which is to be adjusted to the state of the foreign exchanges. We have shewn under DISCOUNT, by abundant historical evidence, that it is capable and effectual in doing so.

BUNN, THOMAS.

Remarks on the necessity and the means of extinguishing a large portion of the National Debt. Bath, 1828.

BURAT, JULES. A civil engineer, born at Paris. He has long been a contributor to commercial periodicals—the *Journal de Commerce*, the *Dictionnaire de Commerce et des Marchandises*, and to the *Revue d'Economie Politique*, published by Theodore Fx, from 1833 to 1836.

Exposition de l'Industrie Française, année 1844, description méthodique accompagnée d'un grand nombre de planches, et de vignettes, de la liste des récompenses, et d'un historique sur les expositions. Paris, 1845.

BURCHARDT, B.

Entwerp eines Finanz-plans zur Beseitigung des allgemeinen herrshenden Geldenangels. Berlin, 1848.

BURET, ANTOINE EUGENE. Born at Troyes, 6th October, 1810. A writer of much promise, who died young. He was an able contributor to the *Journal des Economistes*. He died 23rd August, 1842.

De la misère des classes laborieuses en France et en Angleterre, de la nature de la misère, de son existence, de ses effets, de ses causes, et de l'insuffisance, des remèdes qu'on lui a opposés jusqu'ici, avec l'indication des moyens propres à en affranchir les sociétés. Paris, 1841.

This work received a gold medal from the Academy of Moral and Political Sciences in the Institute of France.

Question d'Afrique. De la double conquête de l'Algerie, par la guerre et la colonisation, suivi d'un examen critique du gouvernement, de l'administration, et de la situation coloniale. Paris, 1842.

BUYER, CASPAR.

Die Wechselmatrikel des Königlich bayerischen Wechselgerichte Bamberg. Bamberg, 1845.

BURGES, TRISTRAM.

Address to the Rhode Island Society for the encouragement of domestic industry. Providence, 1842.

BURKE, EDMUND, is distinguished as the first British statesman who had any knowledge of Political Economy. He was born in Dublin on the 12th of January, 1729 or 1730, the son of an attorney in large practice. Of a family of fifteen, only four survived infancy. As Edmund's health was delicate, and shewed a tendency to consumption, he was sent out of town to Castle Town Roche, near the castle of Spenser, to whom his mother claimed a relationship. At 12 years of age, he was removed to Ballitore, about 30 miles from Dublin, where he was placed at a school kept by an eminent quaker named Shackleton. Burke was early distinguished for industry, power of memory, and facility of acquisition,

and he shewed that warmth of heart which so nobly distinguished him afterwards. He formed a warm attachment with the son of his schoolmaster, and continued it till his death in 1792.

In 1744, he entered Trinity College, Dublin, where he continued the same industrious course as at school; and though he is not said to have been distinguished as a classical scholar, he gave much of his time to the study of history, moral and political philosophy, and metaphysics. He also took a leading part in the Historical Society, which was then founded, and like its counterpart, the Speculative Society in Edinburgh, numbered amongst its members many of the most distinguished men of the day.

In 1750, he came to London, and entered himself as a student at the Middle Temple, as his father had set his heart upon his being distinguished as an English lawyer. He still continued as industrious as ever; but he pursued too wide a range of study to be consistent with that exclusive devotion to the law which is indispensable to success at the bar. He seems soon to have abandoned the idea of following it up as a profession, to his father's great annoyance.

In 1756, he published anonymously his *Vindication of Natural Society*, a satirical attack on modern society, in the manner of Bolingbroke. The parody was so well done, that it is said several men of eminence were deceived, and took it really to be written by Bolingbroke. In the same year he published his *Inquiry into the origin of our Ideas of the Sublime and Beautiful*. The application he bestowed in producing these works injured his health, and he went to Bath to recruit. He was received into the house of a countryman of his own, Dr. Nugent, whose daughter he afterwards married.

In 1757, he contemplated emigrating to America, but fortunately, was diverted from his purpose. His writings began to make him known, and in 1758, he was engaged by Dodsley to superintend the publication of the Annual Register then commenced, and his rising fame procured for him the friendship of Johnson, Lord Lyttleton, Jenyns, Reynolds, and Adam Smith.

In 1761, through the influence of Lord Charlemont, he was made private Secretary to "single speech" Hamilton, the Secretary for Ireland, who, in 1763, obtained a pension of £300 a year for him on the Irish establishment. But he did not long enjoy it. Hamilton gave him very soon to understand that he considered him as bound to him for life. Burke was of far too independent a nature to submit to this, and resigned his pension, and a complete rupture followed between them.

At this period Burke's goodness of heart displayed itself in a very striking manner. Having discovered in a poor Irish lad named Barry, what he considered great promise of artistic talent, Burke, though in very straitened circumstances himself, took upon himself the charge of his education, and sent him to Rome, where he remained for several years studying, without earning a farthing for himself. On his return Burke did everything he could to advance him.

The poet Crabbe, too, owed his advance entirely to Burke. The unfortunate young man, being in the last state of destitution, addressed manuscripts of his poems to several of the leading statesmen of

the day, and met with nothing but neglect. In a happy moment he sent them to Burke, with a modest note stating his distress, and the repulse he had met with. Burke though then engaged in the very keenest political contest, immediately attended to the distressed poet. He read and approved the poem, and sent for the author, and took him into his own house, and maintained him until he was able to turn his talents to some account. He selected and corrected his verses, and introduced him to Reynolds, Johnson, and other eminent persons. His poems were published under Burke's patronage in 1782, and Crabbe subsequently got several livings through his influence. These deeds deserve to be recorded to shew the nature of the man.

Burke, having thus quarreled with Hamilton, returned to London, and became an assiduous attendant in the gallery of the House of Commons, and particularly studied Political Economy.

At length the way was opened for him to reap the reward of so much toil. In July, 1765, the Grenville administration came to an end. Lord Rockingham was made premier, and he immediately appointed Burke as his private secretary. Lord Verney returned him to Parliament for his nomination borough of Wendover.

In January, 1766, he made his first speech on behalf of America. His success in the House was immediate and immense. All the Parliamentary leaders were amazed. And his reputation rose higher and higher after every address. In July, 1766, the Rockingham administration came to an end; and Chatham, who succeeded him, was anxious to offer Burke a place in the new ministry; but he adhered to his political friends, and went out of the way to avoid the temptation.

In 1767, he purchased an estate of 600 acres in Buckinghamshire, for which he paid £20,000. There is no doubt that Lord Rockingham advanced him part of the purchase-money, and at his death the bond was found cancelled. Although there does not seem to have been anything improper in this transaction, it was always made a subject of much malignant censure by his enemies.

In 1768, Mr. Grenville either wrote, or caused to be written, a defence of Lord Bute's administration, in a pamphlet entitled, *The present State of the Nation*. Burke wrote an answer to it, entitled, *Observations on a late Pamphlet, entitled, &c.*, in which he shewed how completely he had mastered the subjects of commerce and finance.

In 1770, he published a most admirable pamphlet, called *Thoughts on the present Discontents*.

In 1771, he was appointed agent to the State of New York, with a salary of about £1,000 a year. During the American War he uniformly and strenuously opposed the suicidal ministerial policy. Many of his most splendid efforts were made in this cause. The course he took led to a difference with his patron Lord Verney, and he resigned his seat for Wendover. Another was provided for him at Malton; but after he had been elected for Malton, and on the sixth day of the poll at Bristol, a deputation from that city arrived, and invited him to stand. He immediately decided to accept the offer, and travelled day and night till he reached it, and was returned on the 27th day of the poll.

In 1776-7, the Rockingham party, seeing all their efforts fruitless to stem the ministerial and

national phrensy on the American war, set the inexcusable example of absenting themselves from Parliament. This course, though unfortunately imitated by Fox and the Whig party several years later in the revolutionary war, has now been justly and universally condemned.

In 1788, his Free Trade views led him to support the relaxation of the impediments upon the trade with Ireland; but his narrow-minded and selfish constituents took deep offence at this, as well as his enlightened advocacy of the claims of the Roman Catholics, and, on the dissolution of 1780, rejected him. He then took refuge at Malton, and sat for it during the remainder of his Parliamentary career.

In 1779, Burke brought forward a great plan of Economical Reform. Never before, probably, had a matter of dry detail been adorned with such eloquence; and it even gave no offence to the very persons whose places were attacked. But, speaking from the opposition benches, such a plan had no chance of success. The speech, however, created the warmest admiration, especially in Johnson and Dunning. In 1782 the Rockingham party were restored to power, and Burke was made paymaster of the forces, then the most lucrative office in the government, and made a privy councillor. In this position he carried a considerable portion of his measure of economical reform, though of course it was considerably curtailed.

The sudden death of Lord Rockingham broke up his party, and Burke assumed his old place in opposition till the ill-starred coalition of Fox and Lord North, when he was again made paymaster. The India bill, which sealed the fate of that political error, is said to have been a plan of Burke's. The skilful tactics of Pitt scattered his enemies to the winds; and the generation who had listened with wonder and admiration to Burke were exiled for ever from Parliament. The benches were crowded with serried ranks of fox-hunting squires who came not to listen to Burke, but to vote with Pitt.

In 1784, the University of Glasgow elected him Lord Rector.

In 1786, Burke entered on the most memorable event of his life—the prosecution of Warren Hastings—and in 1789 the French Revolution broke out, which two events almost exclusively absorbed his attention for the rest of his life. For neither of these is there any room for judgment here. There can be no doubt of his intense sincerity in both. The latter, indeed, was pursued with a vehemence and frenzy which totally severed him from the affections of a lifetime, and was indeed scarcely consistent with rationality.

In 1790, his *Reflections on the Revolution in France* was published, the most gorgeous of all his writings. In a single year 30,000 copies were sold. Most of the crowned heads in Europe loaded him with favors and presents. The Universities were equally enthusiastic. To this subject the greater part of his future writings were devoted; and they bore no remote analogy to the pictures of Turner in the latest period of his life. They were nothing more than pieces of gorgeous coloring, from which all traces of the reality of nature had vanished.

The political connection between Burke and the party he had acted with all his life had been

severed in the progress of the French Revolution, and even his personal friendships were dissolved. In December, 1792, Burke, in a climax of feeling, formally crossed the floor of the House, and took his seat by Pitt. But even Pitt was far too lukewarm for Burke.

On the 24th September, 1795, a pension of £1,200 a year was conferred on him, which was antedated to 1793; and on the 24th October, 1795, two others, amounting to £2,500, for three lives, and antedated to July, 1793. Of all men who ever received a pension, few were better deserving of it than Burke; but it is sad to think that it was given him, not for his glorious efforts to stem the national madness about the American War, but for the most mischievous part of his whole career, and the one which has met with the unanimous condemnation of every competent judge since his time.

Further honors were intended for him. He was going to have been made a peer, but he soon lost all tie to earthly greatness. In 1796, he was utterly broken by the loss of his son, a man certainly of talent, whom he regarded almost with idolatry, and whom his excitable imagination had invested with a genius which, he fondly hoped, would one day eclipse his own. The heart-broken father was not long in following. After trying Bath for four months, without benefit, he returned to Beaconsfield to die; and in July, 1797, there were laid in the village church, remains which had contained one of the warmest hearts, the most gorgeous imaginations, the most ardent spirits, and the most capacious intellects that ever adorned humanity.

Observations on a late publication intitled, "The present State of the Nation." London, 1769.

This abounds with the most valuable economical details of the condition of the nation. He shews in it, how clearly he saw the fallacy of the Balance of Trade. "On this state the reader will observe that I take the *imports from*, and not the *exports to*, these conquests, as the measure of the advantages which we derived from them."—"So that our imports from them, and not our export, ought always to be considered as their true value; and this corrective ought to be applied to all general balances of our trade which are formed on the ordinary principles." In fact, this is exactly in accordance with the fundamental principles of the system of Political Economy we are endeavouring to enforce, that it is not the labor which gives value to any product but the quantity of things that can be had in exchange for it. Thus the consequences of fundamental principles appear in cases where they are least expected. And this is in direct contradiction to the principles of the second school of Political Economy which held that labor was the cause of value. (FOREIGN TRADE: RICARDO.)

He also clearly saw the rotten state of the finances of France, and utters a prophecy which was fully verified twenty years later. "Indeed, under such extreme straitness and distraction labours the whole body of their finances, so far does their charge outrun their supply in every particular, that no man, I believe, who has considered their affairs with any degree of attention or information, but must hourly look for some extraordinary convulsion in that whole system; the

effect of which on France, and even on all Europe, it is difficult to conjecture."

Speech on American Taxation in 1774.

Two letters to Gentlemen in the City of Bristol on the Bills depending in Parliament relative to the trade of Ireland. 1778.

In these letters, Burke's enlarged mind appears well. The miserable jealousy of the Bristol traders wanted to keep down the Irish commerce. Burke said, "But your profit and theirs must coincide. Beggary and bankruptcy are not the circumstances which invite to an intercourse with that, or any other country; and I believe it will be found invariably true that the superfluities of a rich nation furnish a better object of trade than the necessities of a poor one. It is the interest of the commercial world that wealth should be found everywhere." These may sound like truisms now, but they were paradoxes then.

Speech on presenting to the House of Commons a plan for the better security of the independence of Parliament, and the economical reformation of the civil and other establishments. Feb., 1780.

This abounds with valuable details of the economical state of the nation.

Thoughts and details on scarcity. 1795.

An admirable tract full of the soundest economical doctrine.

Besides these tracts, which are specially on economical subjects, numerous other important doctrines incidentally occur. Among others we may mention that in the *Reflections on the Revolution in France*, where he sees that money is general credit. He denounces the assignats which were substituted "in lieu of the two great recognized species that represent the lasting conventional credit of mankind."

BURN, JAMES DAWSON.

Commercial enterprise and social progress. London, 1858.

BURN, JOHN ILBERTON.

Familiar letters on population, emigration, home colonization. London, 1832.

BURN, RICHARD, LL.D.

The History of the Poor Laws. London, 1764.

BURN, RICHARD.

Statistics of the Cotton Trade. London, 1847.

BURNESS, W.

Essay on the Elements of British Industry, &c. London, 1848.

BURNLEY, WILLIAM HARDIN.

Observations on the present condition of the Island of Trinidad, and the actual state of the experiment of Negro Emancipation. London, 1842.

BURT, ALFRED.

Life Assurance; an historical and statistical account of the population, the law of mortality, and the different systems of Life Assurance. London, 1849.

BURTON, JOHN HILL. The son of an officer, was educated for the Scotch bar, and passed advocate in 1831. He very early became a zealous supporter of Free Trade doctrines, and being

on friendly relations with Colonel (now General) Thompson, contributed to the Westminster Review in 1833. After that he continued to support them warmly in the press, and became acquainted with Mr. Cobden and the Manchester party in 1838, when they were just commencing that apparently hopeless agitation, which, from a remarkable combination of circumstances, received so magnificent a triumph in 1846. Besides several works on professional subjects, Mr. Burton superintended the publication of Jeremy Bentham's works, to which he has prefixed an introduction, containing an estimate of his system and his merits. He has also published in general literature, *The Life and Correspondence of David Hume*, 2 vols., 1846. *The Lives of Lord Lovat and Duncan Forbes of Culloden*, 1847. *Narratives of Criminal Trials in Scotland*, 1852. *The History of Scotland from the Revolution to the extinction of the Jacobite insurrection, 1688—1748*, 2 vols., 1853.

In searching among the cellars of the Advocate's Library in Edinburgh, Mr. Burton found a chest containing all the books and accounts relating to the too famous Darien scheme, the Mississippi plan of Scotland. A selection of these were published by the Bannatyne Club, at his suggestion, in 1849.

In 1854, he was appointed Secretary to the Prison Board of Scotland.

Political and Social Economy, its practical applications, 1849.

The outbreak of the French revolution in 1848, gave a considerable impulse to the spread of Socialistic principles among the working classes in this country. This work was written to counteract the mischievous tendency of such doctrines, and is essentially popular in its character. It very properly avoids dealing much with abstract doctrines, but explains the actual working of economic principles in society. Nevertheless, although it is professedly popular, the author cannot help occasionally noticing abstract principles, and on such occasions we are happy to see that Mr. Burton's doctrines almost invariably coincide with those of this work.

The first two chapters are an excellent popular exposition of "Labor;" and at p. 23, he takes the opportunity of shewing the fallacy of the very generally received doctrine, that labor is the measure of value. "Labor is a thing too varied, and the distinctions between its different aspects are of too subtle a character, to admit of its being made an actual measure of value. Speaking of the labor that seems to be merely mechanical, shall we measure by the locksmith, the machine maker, and the chaser of the precious metals, or shall we measure by the ploughman, the handloom weaver, and the net maker? The former class make sums varying from 3s. to 15s. a day, and even more; the latter keep pretty close to the level of 1s. When we come to the field of intellectual labor, we find still wider differences, and soon see that it is impossible to establish labor as a practical measure. To speak of a thing being worth a day's labor generally, is, adopting the vulgar but discarded pecuniary measure of value, to speak of it as of some value between 1s. and 15s. Nor shall we be more successful if we take the produce of the labor. Who can compare the relative worth of ploughing a field, the weaving of a web, and

the making of a watch, *otherwise than by the sums they will respectively bring?* Thus, practically, before it can itself serve as a measure, labor must be meted out by that other measure of value, which is considered so uncertain—money." This is evidently the very doctrine of Aristotle; and is the very point which we maintain (LABOR; VALUE), that it is not the labor which gives value to a product, but the value of the product which proves the value of the labor; and is the complete refutation of the doctrines of Ricardo, De Quincey, and McCulloch.

Mr Burton then describes the decaying condition of those laborers who set themselves against the irresistible progress of invention and improvement. The recent unhappy strikes in London, prove but too well, how greatly the doctrines of this chapter have still need to be inculcated on the working classes.

Mr. Burton then goes on to shew the error of the doctrine that the field of productiveness is limited, and points out that it is the multiplication of the *wants* of men that calls forth the increased energies of the industrial population to create something to gratify those wants. His conception of *productive labor* is entirely in accordance with our own, (CAPITAL; PRODUCTION.) At p. 51, he says, "We lately found the editor of a newspaper calling his own occupation productive, because he aided in producing weekly a broad sheet of tangible printed paper, while he maintained that a great public singer was an unproductive laborer. A musical enthusiast, on the other hand, who took an hour to read the newspaper, and did not remember many hours afterwards, when it had gone to light the household fires, the politics he had read in it, said that the public singer supplied him with ideas, and products of science, and pleasurable emotions, that would last him all his life. *Whatever society pays for, and ought to pay for, may fairly be considered as productive labor for our present purpose*; for though there are no tangible objects created by it, yet it contributes in the end to the increase of production. Whatever tends to organize and civilize mankind is thus productive; and it would be difficult to decide what proportion of the majestic fruits of civilization, which lie everywhere around us, we owe to the judges, who by their strict enforcement of the law, have protected private liberty and property from oppression and plunder, and to the instructors of youth, who have disciplined our citizens to fulfil their respective parts in life."

This is the very doctrine we support. And in his chapter on Capital, Mr. Burton, in strict accordance with the preceding extract, fully acknowledges the existence of incorporeal capital. "Let us remember that capital is not limited to the collections of thousands of pounds invested by the monied aristocracy; it exists wherever man possesses facilities from past labor, whether exercised by himself, or by those who allow him to have the benefit of it, for laboring to better effect in future. A carpenter's well equipped tool-chest is capital, producing, when combined with his labor, a far higher per centage than the sum it cost would procure for an idle man of fortune. *Education, skill, even good principles, are capital*; they are something that has been made by the individual who enjoys them, or by others, who have

communicated their benefit to him. The savage, when he has made a bow, and fitted it with a string of twisted grass, and has got a quiver of arrows made with reeds and pointed with ebony, is a capitalist. Few could be in a better position for estimating the efficacy of capital than a New Zealander, who, depending on his native bones and muscles for obtaining food, finds himself suddenly possessed of a bow and a quiver of arrows. All that is saved from labor past, is an accelerator of labor future. The saving from past labor, that enables a father to train his son to a skilled profession, is capital, though he should never give that son a farthing in the shape of money. If the father can afford the son food for a few years, that he may gain strength for bodily labor, this also is capital. Everything that endows the human being with more than the naked forked animal, which man has been described to be, is capital. It is a great advantage to any one to have capital made to his hand—it is the uniformly acknowledged felicity of possessing a fortune; but there is always a person who has created the capital, or made the fortune: and in answer to all statements, that the quantity of productive labor depends on the amount of capital, we have to set forth the existence of the productive labor that has created the capital."

This, so far as it goes, is perfectly accurate. We have shewn that *not only past labor*, which we may call positive, may be used as capital, but also its opposite, or *future labor*, which is a negative, may also be used as capital.

Two chapters on the "Working Classes" contain much excellent advice about strikes, and the condition and duties of the working classes to themselves.

Mr. Burton then examines the duties of wealth and landed property, and discountenances the projects which some ardent writers have brought forwards, for transforming the country into peasant properties.

A chapter on "Population" successfully controverts several of the Malthusian doctrines, and shews the fallacy upon which several of them rest. (POPULATION.)

Mr. Burton then combats, in a commendable "spirit of pure hostility," the Socialist and Communist doctrines, of which he avows himself the uncompromising enemy in all shapes and forms.

The next chapters discuss "the limits of the function of the State" and "education." In the latter the author thinks that children, whose parents cannot afford it, should receive education at the public expense.

A discussion on "Pauperism and the Poor Laws" and "Emigration" conclude the work.

We have said that the above work is especially intended as a popular exposition of the subjects discussed in it. We have reason to believe that Mr. Burton meditates a more extensive work on a somewhat similar plan; we would earnestly urge on him to proceed with it while yet there is time.

Report on arrestment of Wages; the effect of abolishing imprisonment for small debts; and the practice of truck in Scotland. 1853.

This is a report prepared in obedience to the instructions of Lord Advocate Moncrieff, in 1853.

By the law of Scotland, a creditor may not only proceed against his debtor, but if he finds out any

person who holds any money or property of his debtor's, he may arrest it in his hands. This principle is unknown to English law, except in the city of London, where it is called "foreign attachment," and, we believe, in a few other places. It has, however, to some extent, been adopted in England recently. This facility for "arresting" money in the hands of a third person, before it comes into the hands of the debtor, has opened a door for a very wide extension of the credit system among the working classes in Scotland; and there is no doubt, in a great many instances, has enabled reckless and improvident men to obtain credit, where they never would otherwise have done so. The merits and demerits of this system, in a social point of view, have been fiercely contested. And, like in many other social questions, there is undoubtedly "much to be said on both sides." It appears, however, chiefly to prevail in the western counties of Scotland; and above all in Glasgow. In consequence of this system, the legal processes taken out against working persons are enormous. In Glasgow alone, in 1863, they were 80,000 annually. No doubt much oppression occurred in individual instances, and the advantages of the system were much called in question.

In 1853, Lord-Advocate Moncrieff appointed Mr. Burton as commissioner to inquire into the working of the system, as well as the methods adopted to evade the Truck Act. Mr. Burton made a tour through most of the counties south of Aberdeen, and the result was the above Report, which places a mass of information before the reader, which we do not believe is to be got elsewhere. The contents of this Report, which ought to be more generally known than it is, are calculated to excite discussion of a very interesting and subtle nature among all those who pay attention to our social organization, and on which it is peculiarly difficult to come to any decision with which one would be inclined to be satisfied, that he had arrived at certain conclusions.

Communism. Edinburgh, 1854.

Reprinted from the *Encyclopædia Britannica*, is an excellent summary of the history of Communism.

Emigration, in its practical application to individuals and communities. Edinburgh, 1851.

The British Empire. London, 1856.

BUSCHBECK, A. E.

Die Einrichtung von Staats-Giro-Banken in der Preussischen Monarchie. Berlin, 1845.

BUSHE, GERVASE PARKER.

Some considerations on the Income Tax. London, 1845.

BUSZ, F. J. Aulic Councillor and Professor.

System der gearmten Armenpflege. Nach dem Werk des H. Von Gerando und nach eignen Ansichten. Stuttgart, 1845.

BUTEL-DUMONT, GEORGE MARIE.

Born at Paris, 20th October, 1725. An advocate, Secretary to the Embassy to St. Petersburg, and filled several other offices. He translated several works from English, and was an author himself. He died about the end of the century.

Histoire et commerce des Antilles Angloises. 1758.

Traité de la circulation et du crédit. Paris, 1771.

Théorie de l'usage; ou Traité dans lequel on entreprend d'établir que le luxe est un ressort, non seulement utile, mais même indispensablement nécessaire à la prospérité d'un Etat. Paris, 1771.

Recherches historiques et critiques sur l'administration publique et privée des terres chez les Romains, depuis le commencement de la République jusqu'au siècle de Jules César. Paris, 1779.

These two latter works are very highly praised by Blanqui.

BUTTERWORTH, EDWIN.

A statistical sketch of the County Palatine of Lancaster. London, 1841.

BYLES, JOHN BARNARD, SIR. One of the Justices of the Common Pleas.

Sophisms of Free Trade and popular Political Economy examined. London, 1850.

Observations on the Usury Laws. London, 1845.

A practical treatise on the law of Bills of Exchange, &c. 7th Edition. London, 1857.

BYTMEISTER, HEINRICH JOHANN.

Delineatio rei ministraticæ. Argentorati, 1744.

C

C.

An address on the Corn Laws. By a Protectionist. London, 1846.

C.

Histoire des joyaux et principales richesses de l'Orient et de l'Occident. Genève, 1667.

C. D.

Mémoires sur l'agriculture du Boulonnais, et des cantons maritimes voisins. Boulogne, 1784.

C. D. G.

Observations on the re-adjustment of taxation, and the substitution of a more simple mode of collecting a Revenue, than at present pursued. In a letter to John Macgregor, Esq. London, 1846.

C. F.

The Elements of the Currency plainly stated and practically discussed. London, 1856.

Free Trade, its moral, social, commercial, agricultural, and political results. London, 1852.

An inquiry into the National Debt and Sinking Fund. London, 1856.

The politics and Political Economy of weak governments. London, 1858.

Preliminaries of peace between Protection and Free Trade, or cheap bread compatible with both. London, 1852.

Present condition and future prospects of the Country in reference to Free Trade. London, 1846.

G. G.

La révolution politique, et la révolution sociale. Paris, 1848.

C. H., Dr. See CHAMBERLEN, HUGH.

C. J. See CHILD, JOSIAH.

C. J. Merchant.

Proposals for regulating the Silver Coyne, bearing the charge of it, producing a circulation, and securing it to the kingdom. London, 1696.

C. R.

A treatise concerning the regulation of the Coyne of England. London, 1696.

C. S. S.

Corn v. Cotton. Inscribed to the Duke of Buckingham. London, 1843.

C. W.

An alarm to England to prevent its destruction by the loss of Trade and Navigation. London, 1700.

C. W.

England's interest by trade asserted. London, 1671.

C. W. A Lover of his Country.

Trade's destruction is England's ruin. London, 1659.

C. W. M.D.

A proposal for raising a fund to discharge the debts of the Nation. London, 17—.

CABANILLAS, N.

Recherches pour substituer le papier-monnaie au numéraire. Le Mans, 1848.

CABANIS, PIERRE JEAN GEORGES.

Born at Cosmac, in 1757, was eminent as a physician, a philosopher, and a writer. He was a member of the Council of 500, and after the 18th Brumaire was appointed a member of the Conservative Senate. He was a member of the Institute. He died 6th May, 1808.

Essai sur les secours publics. Paris, 1793.

CABARRUS, FRANÇOIS, COMTE DE, was born at Bayonne, in 1752. Being destined for commerce, he was sent to Saragossa to learn Spanish. He established himself near Madrid, and became acquainted with Campomanès, d'Olivadès, and other Spanish economists. Upon his advice the minister of finance created government notes bearing interest, which had a good effect in restoring credit. This having succeeded, the Bank of St. Charles at Madrid was founded, and placed under his direction, but he was disgraced in 1788, on the death of Charles III. Some years afterwards he was appointed ambassador to France and Holland. In 1809, Ferdinand VII. appointed him minister of finance. He died 27th April, 1810.

Memoria presentado a S. M. para la formacion de un banco nacional, por mano del excellentissimo Senor Conde de Florida Blanca, su primer secretario de Estado. Madrid, 1782.

Memoria sobre la union del commercio de America con el Asia. 1784.

Castas sobre los obstaculos que la naturaleza, la opinion, y las leyes oponen a la felicidad publica. Madrid, 1780.

CABET, ETIENNE, was born 1st January, 1788, at Dijon. One of the most notorious socialists of the day. He is the son of a cooper, and was intended for that trade himself, till 12 years of age. His father, however, gave him a good education, and he studied medicine and law, and became an advocate at Dijon. He was obliged to leave there in consequence of the ardor he displayed in defending General Veaux, in 1816, on a charge of conspiracy against the Bourbons. He then went to Paris to pursue his profession. He took an active part in the revolution of 1830, and he was soon afterwards appointed avocat-général of Corsica. But he was soon recalled on account of the violent democratic opinions he avowed. The department of the Côte-d'or returned him to the Chamber of Deputies, in which he maintained the most violent doctrines. He established a newspaper, *Le Populaire*, on the same principles, which in February, 1834, having contained some violent attacks on the king, he was tried and condemned to two years imprisonment. He escaped to England, and lived there till 1839.

In 1841, he began to put forth his peculiar Socialistic doctrines. These are reduced to a regular treatise in his *Voyage en Icarie*, published in 1842. (SOCIALISM). This became very popular, and in 1847 he came to London to obtain a grant of land in Texas to carry out his scheme. Having succeeded in this, a party of his disciples started for the settlement, against his advice, as was said. They suffered much, which becoming known at Paris, made a great outcry against him. Cabet, however, set out with a new band of disciples at the end of the year. The Mormons had been obliged to leave Nauvoo, and in May, 1850, Cabet was allowed to establish his colony there, where it is said still to exist. Cabet is sole judge and ruler. The number is said to be about 200. Besides a great number of pamphlets on his doctrines, Cabet has published,—

Voyage en Icarie. Paris, 1842.

Vrai communisme. Paris, 1847.

Douz-lettres sur la communauté. Paris, 1845.

Réalisation de la communauté. Paris, 1847.

Almanach Icarien. Paris, 1844.

CADOR, SAMUEL L'HOUMEAU, born at La Rochelle in 1816.

Subsistences et Populations. Paris, 1850.

CAGNAZZI, LUCA DE SAMUELE.

Elementi dell' arte statistica. Naples, 1808-9.

Saggio sulla popolazione del regno di Puglia ne' passati tempi, i nel presente. Napoli, 1820.

CAGNOLI, OTTAVIO.

Cenni statistici di Verona, e della sua provincia, colla pianta di Verona nel 1849. Verona, 1849.

CAJANUS, ERIC.

Historisk och økonomisk beskrifning öfver Cronoby Sökn uti Osterbota. Abo, 1755.

CAIGNIART DE SAULCY, L. F. JOSEPH.

Essai de classification des monnaies autonomes de l'Espagne. Metz, 1840.

Recherches sur les monnaies de la cité de Metz. Metz, 1836.

Recherches sur les monnaies des Comtes et Ducs de Bar. Paris, 1843.

Recherches sur les monnaies des ducs héréditaires de Lorraine. Metz, 1841.

Recherches sur les monnaies des Evêques de Metz. Metz, 1845.

CAIRD, JAMES, M.P.

High farming under liberal covenants the best substitute for Protection. Edinburgh, 1849.

English agriculture in 1850-51. London, 1851.

High farming vindicated and further illustrated. Edinburgh, 1850.

The plantation scheme, or the West of Ireland as a field for investment. London, 1850.

Prairie farming in America, with notes, by the way, on Canada and the United States. London, 1859.

CAIRNES, JOHN E. Whately professor of Political Economy at Trinity College, Dublin, and professor of Jurisprudence and Political Economy in Galway College.

The Character and Logical Method of Political Economy. London, 1857.

The object of this course of lectures is to discuss the nature, objects, and limits of economic science, and the method of investigation proper to it as a subject of scientific study.

At p. 3, Professor Cairnes enters a protest, in which we are happy to concur, against the excessive authority which statistics are assuming over Political Economy. In former times men studied principles, but now they seem exclusively to collect statistics, and even to consider Political Economy as having no other aim than to explain statistics. Now there is no science in which statistics are not of immense value, when properly used, but sciences depend upon certain fundamental conceptions, and not upon statistics. Statistics are of great use in mechanics, but the fundamental conceptions of mechanics are not formed from statistics: so statistics may be of great use in medical science, but the treatment of a fever does not depend upon statistics. So in Political Economy, statistics are also of great use, but its fundamental conceptions and principles in no way depend upon them. Thus statistics must be the handmaiden and not the mistress of Political Economy.

Professor Cairnes says, p. 3, "The technical terms of Political Economy are often taken from popular language, and inevitably partake, in a greater or less degree, of the looseness of colloquial usage. It is not, therefore, to be expected that economic discussions should be carried on with the same singleness of purpose, or severity of expression and argumentation—consequently with the same success—as if they treated of the ideas of number and extension, or of the properties of the material universe."

To this doctrine we must enter our decided protest. It is the very cause of the science being in so controverted a state at the present day, that economists have not really examined and settled the meaning of the words they use. (PRELIMINARY

DISCOURSE; AXIOMS AND DEFINITIONS). The technical terms of many of the other sciences are taken from common discourse, but they are carefully appropriated to certain meanings in those sciences, and always used in that single sense.

The consequences of Professor Cairnes's loose phraseology, are very soon apparent. At p. 7 he says, "I shall, therefore, take it for granted that 'wealth,' the subject matter of Political Economy, is susceptible of scientific treatment." Now what is *wealth*? Does Professor Cairnes include incorporeal elements as well as material ones under that title? A question of the most vital importance in Political Economy. After bringing forward definitions of this science that have been propounded by various writers in which he substantially agrees, he proposes his own, either this,—“Political Economy is the science, which, accepting as ultimate facts the principles of human nature and the physical laws of the external world, investigate the laws of the production and distribution of wealth, which result from their combined operation;” or this—“Political Economy is the science which traces the phenomena of the production and distribution of wealth up to their causes, in the principles of human nature and the laws and events of the external world.” Now let us observe that assuming the “principles of human nature” and “laws and events of the external world” to be all known and accepted as facts, still, neither from the definitions offered, nor from his whole treatise, can we discover what he means by *wealth*, or *production*, or *distribution*, each of them words of a fundamental importance. We have asked above what the Professor means by *Wealth*; We now ask what he means by *Production*? For as it stands we have nothing to inform us whether the whole science of agriculture and manufactures is included in it. One of the fundamental differences between the school of Quesnay and Adam Smith lay in the different meanings given to *Production* and *Productive labor*, and different theories of *taxation* have been founded on the meanings given to it. We can only say that this definition of Political Economy leaves us in total darkness as to its “nature, objects and limits.”

Professor Cairnes then quotes a passage from Mr. Mill, in which we do not think he has very clearly expressed the connection between Science and Art. The true connection is well expressed by Bacon, *Nov. Org.* 1. 3. “Quod in contemplatione instar causæ est, id in operatione instar regulæ est.”—“That which is a principle in Science is the Rule in Art.” However, we shall reserve some discussion on this till further on in these remarks.

Professor Cairnes then discusses whether Political Economy is an exact, a positive, or an hypothetical Science; as we have so fully considered this question in the *PRELIMINARY DISCOURSE*, we shall not repeat here what is there stated.

Professor Cairnes then classes Political Economy with Mechanics, Astronomy, Optics, Chemistry, Electricity, and the Physical Sciences, which have reached the deductive stage (p. 38), and truly says (p. 58), that the course of inquiry in them will be analogous. As an example of an economic law, he takes the “very fundamental law in Political Economy that ‘cost of

production regulates the value of freely produced commodities," which he maintains to be true. Not that every particular instance of exchange will be governed by the law of cost of production; but he says that it is the constant and unfailing tendency of things to do so. How far this can be accepted as a scientific truth we have fully examined elsewhere. (COST OF PRODUCTION; PRICES, THEORY OF; CONTINUITY, LAW OF).

Professor Cairnes then considers "the solution of an economic problem and the degree of perfection of which it is susceptible," in which he again maintains that Political Economy is not an exact science.

He then devotes a lecture to support the Malthusian doctrine of population, in which we do not think he has been successful, as we think that Malthus has not correctly stated the circumstances of the problem (CAPITAL; POPULATION). Professor Cairnes then adopts the doctrine of Malthus, "that there is in human beings a tendency to multiply faster than subsistence is capable of being increased." (p. 112).

In his last lecture, Professor Cairnes attempts to restore the Ricardian Theory of Rent. We shall not discuss the matter as it is fully done under RENT. But we shall only observe how the adoption of it agrees with Professor Cairnes's doctrine, that Political Economy is to be treated in a manner analogous to the Physical Sciences. He notices the theory first brought forward by Dr. Anderson in 1777 (ANDERSON), and further developed by Ricardo. How entirely inadequate this theory is, we have shewn in RENT. However, Professor Cairnes implicitly adopts it. He then says, p. 152, "This is the theory of Rent, as expounded by Ricardo. It explains the existence of Rent in the case of all those lands on which agricultural produce is raised at less than the greatest cost at which it can be profitably produced; but it explains it in this case only. It has accordingly been objected to this theory, &c., &c. It must be admitted that, assuming the facts to be as the objection implies, the theory of Ricardo fails to account for them; and beyond question, the facts are as the objection implies. This, however, is no reason for rejecting the theory, which, as I have just shewn you, is based on facts quite as certain as those which are urged against it." *

"I have mentioned two cases of Rent in which the phenomenon is not explicable on the theory of Ricardo. I shall now mention another." We have quoted these passages for the purpose of seeing how far Professor Cairnes observes his own doctrine, that Political Economy is to be treated in the same manner as the Physical Sciences. How is a theory which is only capable of explaining *one* single class of cases, and is acknowledged to be utterly incapable of explaining *three* other classes of cases, analogous to any theory received in Physical Science? And Professor Cairnes resolutely adheres to it, because it can explain *one* class of facts! Would this be permitted in any Physical Science whatever? If this is to be permitted, why was the Ptolemaic Astronomy overthrown? It was fully capable of explaining a very large class of cases, and yet, because there were others it could not explain, it was rejected. If this mode of reasoning is to be allowed in Political Economy, why was the cor-

puscular theory of light overthrown? It fully explained a very large number of cases, and yet being found incapable of explaining others, it was rejected. The Ptolemaic Astronomy and the emission theory of light were equally based on certain "facts," or phenomena, as the Ricardian Theory of Rent. Why was the Phlogiston Theory of Chemistry overthrown? It was based on certain facts.

Now, Physicists having tried each of the above theories, and finding them incapable of explaining other facts different from those they were based upon, have unanimously rejected them in favor of general theories, which have explained *all* cases. No Physicist ever thought of writing a work on astronomy, in which one set of phenomena were explained on the Ptolemaic system, and another on the Copernican system. No Physicist ever wrote a treatise on optics in which the emission theory was maintained in one part, and the wave theory in another part. But that is what Professor Cairnes does in supporting the Ricardian Theory of Rent. And on a greater scale, this is the very objection which applies to the whole Ricardian system of Political Economy. It is based on *three*, if not *four*, contradictory theories of value. And how any man educated in physical science can fail to see that, or how seeing that, he can continue to maintain it, is beyond us to imagine.

Now, let us not be mistaken. We fully admit the immense practical benefits Adam Smith, Ricardo, and the early Economists have conferred upon the world. To them be all due honor. But after all, the character of their work was purely *destructive*. They were engaged in a glorious combat to liberate mankind from the shackles which accumulated error, perverse ingenuity, and selfish sophistry had imposed upon them. Their principal efforts were, therefore, to overthrow, and to do that, no very great nicety of expression was necessary. The accomplishment and the triumph of their work was the establishment of Free Trade.

Many persons think that the establishment of Free Trade is the end-all and the be-all of Political Economy. But that is a most grievous delusion. It is only one of the magnificent services it is capable of rendering to mankind, and is indeed only the basis of the Science. It is only clearing the ground of rubbish, and laying the foundation upon which the edifice of the Science is to be reared.

The rough work has been done, but the finer work has yet to be done. In the discussions raised since the days of Adam Smith, vast masses of truth have been ascertained. But they are still in a crude, fragmentary, and unconnected state. They are merely a mass of raw materials, which have yet to be reduced into harmony and order, and consolidated into a great systematic edifice of science, and that so far from being done, has scarcely yet been even attempted. And it can only be done by patient and continuous thought, and by endeavouring to discover those great conceptions and axioms which will connect these disjointed and fragmentary masses of ascertained truths. That this is the only method that can ever succeed, no one conversant with the history of physical science can deny, and yet so far from having been attempted by the chief writers on

Political Economy, it has been positively discountenanced by them. But that is manifestly the duty of future Economists.

In an Appendix, Professor Cairnes has done us the honor to single us out for special attack, and from the challenge he has thrown out to us we shall see how far he has really understood the doctrine of the Economist, whose champion he has declared himself.

After three pages of verbal cavilling, of which he is welcome to make the most, he says, p. 176, "But a word with regard to Mr. Macleod's capacity of understanding the authors whose writings he treats so contemptuously. A large portion of his introduction to his second vol. (i. e., *Theory and Practice of Banking*), is devoted to an attempt to controvert the received doctrine which attributes to 'cost of production' a governing influence on the value of certain classes of commodities. 'Political Economy,' he says, 'can never advance a step until this arch-heresy be utterly routed out.' Well, what is his contradiction of the 'arch-heresy?' Here it is given in capitals. 'VALUE DOES NOT SPRING FROM THE LABOR OF THE PRODUCER, BUT FROM THE DESIRE OF THE CONSUMER. To allege that value springs from the labor of the producer, is exactly an analogous error in Political Economy to the doctrine of the fixity of the earth in Astronomy.'

"Granting that the analogy is perfect (though I confess I am unable to perceive it), will Mr. Macleod inform us who has said that 'Value springs from the labor of the producer?'"

Is Professor Cairnes in jest or in earnest? Has he ever read Ricardo and the Economists of his school? We only take a few passages from them.

Thus Ricardo says, *Principles of Political Economy and Taxation*, 3rd ed., p. 13—

"In speaking, however, of labor as being the foundation of ALL value, &c."

At page 19—

"To convince ourselves that this (i. e., labor) is the foundation of exchangeable value, &c."

At page 320—

"Value then essentially differs from riches, for value depends not on abundance, but on the difficulty or facility of production. The labor of a million of men in manufactures will always produce the same value, but not always the same riches. By the invention of machinery, by improvements in skill, by a better division of labor, or by the discovery of new markets, where more advantageous exchanges may be made, a million of men may produce double or treble the amount of riches, of 'necessaries, conveniences, and amusements,' in one state of society, that they could produce in another, but they will not, on that account, add anything to value; for everything rises or falls in value in proportion to the facility or difficulty of producing it, or, in other words, in proportion to the quantity of labor employed on its production."

At page 323—

"That commodity is alone invariable, which at all times requires the same sacrifice of toil and labor to produce it."

These passages seem to us pretty plainly to declare that value springs from the labor of the producer; but let us see what some of the disciples of the Ricardian school say.

Thus Mr. McCulloch, in his *Introductory Discourse to the Wealth of Nations*, says, p. xxxii—"Locke has here all but established the fundamental principle which lies at the bottom of the science of Wealth. Had he carried his analysis a little further, he could hardly have failed to perceive that water, leaves, skins, and other spontaneous productions of nature, have no value, except what they owe to the labor required for their appropriation. * * * An object which may be appropriated or adapted to our use, without any voluntary labor on our part, may be of the very highest utility; but as it is the free gift of nature, it is quite impossible it can have the smallest value."

And Note II., p. 438—

"When, however, it is said that the labor of man is either immediately and directly, or remotely and indirectly the chief source and limiting principle of exchangeable value,"

Did Professor Cairnes ever read Mr. McCulloch's *Theory of Absenteeism*, and what is his opinion of it?

Did Professor Cairnes ever read *The Templar's Dialogues*, by De Quincey, which have always been considered as the very quintessence of the doctrines of the Ricardian School? (DE QUINCEY).

These passages, among numbers that might be cited, seem to us plainly to declare, that value springs from the labor of the producer. But let us see what impression the doctrines of Ricardo have made on other writers. Let us take Malthus first.

Malthus says, *Definitions in Political Economy*, p. 183—

"Mr. Ricardo, therefore, quite consistently with his own hypothesis, considers a commodity, the producing labor of which has doubled, as having increased to double its former value. It has increased in relation to a standard which, according to him, is the sole cause of value."

Mr. Jennings, *Social Delusions*, p. 12, says—

"To whatever degree of opulence the society might advance, it cannot be conceived that he would consent to abandon these principles in favor of any of our popular dogmas derived from the great fundamental fallacy, that all value is derived from human labor."

Also, p. 66—

"We have already seen that as one school formerly taught that all value is centred in money, and another that it is centred in land, so at the present day the school of Adam Smith, Ricardo, and McCulloch teaches us that it is entirely centred in labor, &c."

Let us also see what impression Ricardo's doctrine makes on an eminent foreign writer. Bastiat, *Harmonies Economiques, De la Valeur*. p. 131. Edit. 1855, says—

"Ainsi le principe de la valeur est pour Smith dans la matérialité et la durée, pour Say dans l'utilité, pour Ricardo dans le TRAVAIL, &c."

We think we have now sufficiently answered Professor Cairnes's question, "who has said that value springs from the labor of the producer?" And perhaps he may now see the analogy we draw between that doctrine and the doctrine of the fixity of the earth.

That doctrine maintains that diamonds are valuable because a great deal of labor has been bestowed in searching for them. We maintain that a great deal of labor is bestowed upon

searching for them, because they are valuable. The Ricardian school affirms that *Labor is the cause of Value*; we maintain that *Value is the cause of Labor*, which is the reversal of the whole Ricardian system of Political Economy. It appears to us that this is as great a revolution in Political Economy as it was in Astronomy, when the doctrine, that the *Sun goes round the Earth*, was changed into the *Earth goes round the Sun*.

Does Professor Cairnes now see any analogy?

The Professor then says, "Mr. Macleod's refutation of the doctrine that 'cost of production regulates value' is therefore simply a refutation of his own extravagant misconception of it. * * *

When a writer thus shews an entire inability to comprehend the meaning of authors of such remarkable perspicuity and power of expression as Mr. Ricardo and Mr. J. S. Mill (for I will not suppose that he intentionally misrepresents them), his competency for the task which he has undertaken, of reconstructing the science of Political Economy, may be imagined. It is, of course, unnecessary to notice his 'arguments' in refutation of the doctrine in question. It will be time enough to do so when he shews that he understands the principles he assails."

It appears to us that Professor Cairnes has yet something to learn of the nature of the doctrine he has undertaken to maintain, as well as something of the method of treating Political Economy in the spirit of Inductive Science. At all events, we have, we think, done enough to obtain a notice from Professor Cairnes of our "arguments" in refutation of the doctrine, which he may see under *COST OF PRODUCTION*.

Professor Cairnes calls us "sciolists and smatterers, who may always be expected to wrangle." It may be so; but our opinions in Political Economy coincide with those of Socrates, Aristotle, Burke, Samuel Bailey, Whately, Bastiat, and Chevalier, and that must console us for being under the censure of Professor Cairnes.

CALDER, FREDERICK.

The proposed decimal coinage, and its application to the various rules of arithmetic, with an explanation of the Chinese Abacus. London, 1854.

CALDWELL, ROBERT. Merchant.

The Gold era of Victoria, being the present and the future of the colony, in its commercial, statistical, and social aspects. London, 1855.

CALENGÉ.

Des différents banques de l'Europe. Paris, 1806.

CALINDRI, GABRIELLE.

Saggio, statistico, storico, del Pontificio stato. Perugia, 1829.

CALLENDER, WILLIAM ROMAINE.

The commercial crisis of 1857, its causes and results. London, 1858.

CALONNE, CHARLES ALEXANDRE DE,

was the son of the President of the Parliament of Douay, and was born there on the 20th January, 1734. His father destined him for the same profession as that in which he had acquired considerable distinction. He was early advanced to the office of *avocat-général* before the principal court

of Artois, and soon afterwards to that of *procureur-général* before the Parliament of Douay. In 1763, he was made master of requests before that Parliament, and in 1768 intendant of Metz. His talents for administration procured him advancement to the more important province of Lille. He was possessed, to a very eminent degree, both of the solid capacity for business, and of the dazzling brilliancy of conversation and manner, which were peculiarly suited to gain him influence with women, who were then so powerful at Paris. By this means he enlisted in his favor the interest which procured him his next appointment.

Turgot and Necker had successively endeavoured to stem the growing deficiency in the finances. But their measures of reform were distasteful to the greedy and selfish courtiers, and they had been driven from power. Necker had retired in 1781, and two short ministries succeeded him. At last, in October, 1783, matters became serious, and the women raised a cry, that Calonne was the only man who could save the country. M. D'Harvelay, the banker to the Court, whose wife was the *very* intimate friend of Calonne, strongly urged his nomination on the king. Calonne was distasteful to the king and queen from his character, and he was very unpopular with the public from some unfair conduct he had been guilty of with regard to some other officials. But the influence of the ladies was irresistible, and he was appointed *Contrôleur Général*, or Prime Minister, on the 3rd October, 1783.

The former ministers had fallen from the unpopularity they created by their attempted retrenchments. Calonne tried the opposite course. When he came into office things were certainly desperate. The whole sum in the treasury was £48. His credit with the financiers enabled him to raise loans, though at heavy interest. While Turgot and Necker had endeavoured to reduce the expenditure, and thus raised themselves hosts of enemies, Calonne determined that every one should be gratified. A succession of public fêtes pleased the populace, and public works were set agoing to employ the workmen; though as one of them was a custom-house wall round Paris, the citizens were not particularly well pleased. The great docks at Cherbourg were commenced, which roused the jealous vigilance of Burke, and which have only just been completed in our own day. The least consideration will shew that this expenditure was of the most mischievous nature, as it was all unproductive, and should only have been incurred out of an overflowing income, and not out of a deficient one. The king and queen were conciliated by the purchase of a palace for each. And when the latter expressed a wish to him, he gallantly replied, "If it is possible, it is done; if it is impossible, it shall be done." To his lady friends he sent *bons-bons* wrapped up in Bank notes. For some time every one was dazzled with the lavish expenditure, which was, in fact, only hurrying the State faster into the abyss.

Nevertheless Calonne never concealed the reality from himself, nor from the King. He frankly told the King that the State was only supported by trickery, and borrowing 100 millions a year. The financiers, of course, were not so easily blinded as the people, and loans

became increasingly difficult to raise. Calonne saw that the bubble must soon burst, and he laid a paper before the King in 1785, containing a scheme of the most startling audacity. He proposed an entire reform of the monarchy. He proposed that all the provinces should be assimilated, in their laws; that all custom-houses between them should be abolished; that each should have a representative assembly; that all exemptions from taxation should be abolished; that the *taille* and the *gabelle* should be diminished, the price of salt lowered, and the *corvée* abolished. To carry out this *revolution*, the *Notables* were to be summoned. The state of affairs was to be laid before them without concealment or disguise, and they were to be invited to make a sacrifice of their exclusive privileges, and surrender their exemption from taxation, for the public good. By these means, Calonne proposed to make an entire reform of the taxation, and he calculated that the income would be made to equal the expenditure, and the State brought out of all its difficulties.

We are at a loss to conceive whether this was the last struggle of a desperate gamester, or the counsel of a profound statesman. It seems clear that the plan proposed would have extricated the State from its embarrassments, and would have saved the Monarchy. But with the examples of Turgot and Necker before him, was he so ignorant of the intense selfishness of the aristocracy as to suppose that they would ever agree to such proposals? Even if the *Notables* did agree to them, how could they give the force of law to such a fundamental change in the laws of the kingdom?

The impending proposals were secretly discussed between the king and only two or three of the ministry during 1786. The Queen even was kept in the dark. At last, on the 29th December, 1786, the public were taken by surprise by a decree summoning the *Notables* to meet at Versailles on the 29th January, 1787.

When the day came, the *Notables* met at Versailles, but there were no preparations made to receive them. This irritated them. At last, on the 22nd of February, a meeting was held. The measure being adopted, it must be allowed that Calonne carried it out with unflinching courage. The state of the kingdom was laid before them in all its appalling danger. He gave them a history of the finances for the preceding 40 years. The false disguise of prosperity in which they had been wrapped by successive ministries was stripped off. In 1764, the annual deficit was already 40 millions; in 1781, it had increased to 56 millions, at the time when Necker had published a statement shewing a surplus of 10 millions. During this time, loans had been continually contracted, and no provision had been made for paying them off. Between 1776 and 1786, loans had been contracted to the amount of 1,250 millions, which no provision had been made to redeem. In the current year the deficiency was not less than 125 millions. Calonne having thus laid the critical circumstances of the country before the assembly, brought forward his plans of reform.

If a volcano had suddenly opened in the centre of Paris, it could scarcely have caused greater terror and consternation, than the *exposé* of Calonne. The financial statements countersigned by so many ministers for so many years, were

now shewn to be so many impostures. The *notables* were furious at the demand upon them to give up their privileges. A universal storm burst out, headed by Necker's friends. Calonne was driven from power. The last chance of saving the country was thrown away, and thenceforth France rushed headlong into the revolution, which soon swept away king, *notables*, aristocracy, church, privileges and all.

In August, 1787, the Parliament ordered their *Procureur-Général* to institute a prosecution against the fallen minister for malversation in office. But gay and jesting to the last, he leisurely retired through the provinces, first to Flanders, and then to England.

He still continued in the confidence of the king, and in 1791 he drew up a plan for the invasion of France by the united powers of Europe, to deliver the Royal Family from the thralldom in which they were kept by the republican party. He strongly opposed the flight of the king, which could only destroy the royalist and constitutional party.

In 1792, the situation of the king became daily more painful, and Calonne warmly urged on the advance of the allied armies to Paris, to deliver him. In July, he, with the Marquis Lemon, drew up that fatal proclamation which was published by the Duke of Brunswick, which gave so great an advantage to the most violent party by making them appear the most patriotic, and which undoubtedly hurried on the destruction of the king.

Calonne lived in England till 1802, and published several pamphlets, which are of great use in explaining the financial condition of France. Napoleon permitted him to return to France, where he died one month afterwards, on the 30th October, 1802.

Besides several memoirs addressed to the king, of great historical interest, Calonne published—

Correspondence de Necker et de Calonne. 1787.

Requête au Roi. London, 1787.

Réponse de Calonne à l'écrit de Necker. London, 1788.

Lettre de Calonne au Roi. 1789.

Seconde lettre de Calonne au Roi. 1789.

Note sur le Mémoire remis par Necker au comité des subsistances. London, 1789.

De l'état de la France tel qu'il peut, et tel qu'il doit être. London, 1790.

Observations sur les finances. London, 1790.

Esquisse de l'état de la France. 1791.

Des finances publiques de la France. London, 1797.

CALVERT, JOHN W.

The merits and tendencies of Free Trade and Protection respectively investigated, and measures of amendment suggested. London, 1850.

CALVERT, ROBERT. M.D.

An exposition of the laws of Social Economy. London, 1831.

CALVIN, JEAN. This celebrated divine may be cited as one of the first persons, if not the first, who saw through the folly of the universal prejudice against the imaginary crime of usury. He was born at Noyon, in Picardy, on the 10th July, 1509, and died on the 27th of May, 1564.

The question of the lawfulness of usury was

submitted to his judgment, and we give an abstract of his reply, as it is the first instance we know of common sense having been brought to bear on the question, and it will be seen how he anticipated Bentham's line of argument. (*Epistole, Responsa. Geneva, 1575, p. 355*).

On the question of the lawfulness of usury being submitted to him, he replies that it is not entirely condemned in any part of Scripture. The sense of the precept of Christ (Luke vi.) had been perverted. The law of Moses was political, and not to be stretched beyond what men and equity would bear. There were, indeed, certain passages of Scripture in which the Holy Spirit inveighs against usury. As in Psalm lv., 12, he describes a wicked city, where usury was practised in public. But, in fact, the Hebrew word meant *fraud* in general, and could not be applied to usury. It is true that usury was mentioned by name, by the writer, but that was because fraud and cruelty so often accompanied it. Ezekiel, it is true, goes further (xxii., 12), and specifies usury as one of the crimes which had kindled the wrath of God against Israel; but he uses two words, one of which means usury, and is derived from the same root as signifies to *devour*, and the other means increase or addition.

He shews that the Jewish laws and polity were adapted to the Jews only, and that modern society in no way resembles the condition of the Jews, to whom usury was forbidden.

He treats the reasons of St. Ambrose and Chrysostom as of very slight weight, and then says:—

“Money does not beget money! What does the sea? What does a house, for the letting of which I receive a rent? Does money truly grow from the roof and walls? But the land also produces, and something is brought from the sea which afterwards produces (or draws forth; *PRODUCTION*) money, and the convenience of a house may be bought or exchanged for a certain sum of money. If, therefore, more profit can be made by trading, than from the produce of any farm, is he who has let some barren farm to an agriculturist to be allowed to receive rent and profit, and another man not to be allowed to receive profit from money? And if any one buys a farm with money, does not that money generate money every year? You would allow that the profit of the merchant comes from his diligence and industry. Who doubts that unemployed money is useless? Or that he who asks a loan from me does not intend to keep it idle when he has got it? Now, in truth, that profit does not arise from the money, but from the produce. These reasons, therefore, are somewhat subtle, and have some plausibility; but when they are fully weighed, they fail. I therefore conclude that we are not to judge of usury by any particular passage of Scripture, but only by the law of equity. This will be clearer by an example. Let us suppose some wealthy man with large possessions in farms and rents, but not much money. Suppose another man, not so rich, nor of such large possessions as the first, but yet having more ready money. The latter being about to buy a farm with his own money, is asked for a loan by the wealthier man. He who makes the loan may stipulate for a rent for his money, and that the farm shall be mortgaged to him until the principal is repaid; but until it is repaid, he will be content with the profit or

usury. Why, then, shall the first contract without a mortgage, but only for the profit of the money, be condemned, when the much harsher one of the annual rent, with a mortgage of the farm, is approved? And what else is it than to treat God like a child when we judge of things by mere words, and not from the nature of the thing itself? As if virtue and crimes could be perceived from the form of the words!”

No one can but admire the daring good sense of this argument in the mouth of a divine, in defence of what was then considered one of the worst crimes men could be guilty of, and be amazed that these arguments made scarcely any impression, even in Protestant England, for upwards of 200 years!

CAMBACERES, JULES.

De la corvée, et de la prestation en nature. Paris, 1848.

CAMBON, JOSEPH, born at Montpellier, the 17th June, 1756. He was a merchant there, when the revolution broke out. He adopted its principles warmly, and in 1791 caused the republic to be proclaimed in his native town. He was sent as its representative to the legislative assembly in September, 1791. He devoted himself specially to the finances. In August, 1793, he was elected President of the Assembly; and in 1794 he addressed to it his report on the finances, and brought forward the plan for the great book of the public debt. He was minister of finance during the period of the Assignats (*ASSIGNATS*). He escaped with difficulty with his life during the reign of terror, and retired for a while from public life in 1795. In 1815 he was elected a member of the Chamber of Representatives; but, being excluded from the amnesty of 1816, he took refuge in Belgium, and died near Brussels, 15th February, 1820. His writings are very numerous.

Sur les Assignats. Paris, 1793.

Rapport à la convention nationale sur le projet de la formation du grand livre. Paris, 1795.

Lettres à ses concitoyens sur les finances. Paris, 1796.

CAMBRELENG. A member of the House of Representatives in the United States.

An examination of the new tariff proposed by the Hon. Henry Baldwin, by one of the people. New York, 1821.

Report of a committee of the House of Representatives, on the 8th of February, 1830, on commerce and navigation. New York, 1830.

CAMPANELLA, TOMMASO. One of the great leaders of the revolt of the human mind against the despotism of Aristotle and the schoolmen, was born the 5th September, 1568, at Stilo, a small town in Calabria. He was early distinguished for extraordinary precocity, and at 14 entered a convent of the Dominicans. He was devoted by the love of study, and in a marvellously short space of time mastered Thomas Aquinas, Albertus Magnus, and the other commentators on Aristotle. Having thus learnt all they had to say, he was profoundly convinced of the utterly unsatisfactory nature of the School philosophy, and immediately began to proclaim

war against it. His master having undertaken to maintain a public discussion at Cosenza, was taken ill, and the monks of the convent invited Campanella to take his place. Campanella declared that philosophy was not to be learnt from authority or from books, but from nature alone. His audience were astonished, and declared that he had imbibed the spirit of the great Telesio. Not having previously heard of that philosopher, he obtained his work, and became a disciple of his doctrine. In 1591, in his 24th year, he published his first work, *Philosophia sensibus demonstrata*, at Naples. This created such a fury among the partisans of the schoolmen and Aristotle, that an old man accused him of magic, and he was obliged to fly. He visited Rome, Florence, where he refused an offer of a Professorship in the University of Pisa, from the Grand Duke Ferdinand, and settled for several years at Padua, in the Venetian territory. Everywhere he denounced the doctrine of Aristotle, and published several works against him. After some years he returned to Stilo. In 1599, an immense conspiracy was formed against the abominable Spanish government of Naples. Hundreds of monks and country gentlemen were involved in it, and Campanella was denounced as one of the chiefs. He was siezed and carried to Naples, where he was thrown into prison, and kept there 27 years, notwithstanding several efforts made by the Pope for his release. He was put to the torture seven times. At length in 1626, after the death of Phillip III, he was released on the earnest request of Pope Urban VIII, who claimed him as a prisoner to the Inquisition, on a charge of heresy. He was removed to Rome, and kept there in a nominal custody. He acquired great influence with the Pope, but the inveterate hostility of the Spanish agents, and the schoolmen still pursued him, and made it unsafe for him to continue there any longer.

In 1634, he escaped in disguise from Rome, in the suite of the Comte de Noailles, the Ambassador of Louis XIII, who was his intimate friend. He fled to France, and visited Peiresc and Gassendi. Richelieu protected him, and Louis XIII conferred on him a pension of 2,000 livres a year. Broken down with his long sufferings, he retired to a convent of his order in the Rue St. Honoré, afterwards the celebrated Jacobins, and after returning from a visit to Descartes in Holland, he died 21st May, 1639.

Campanella, like many other ingenious philosophers, devised a scheme for an Utopian Republic framed on the most extreme communistic principles, it is called *Civitas Solis poetica. Idea Reipublicæ Philosophicæ*. This work describes an imaginary republic; we have given some account of it under **SOCIALISM**.

CAMPBELL, D. FORBES.

Translation of Remarks on the Production of the precious metals. By Michael Chevalier. London, 1853.

CAMPBELL, JOHN, born at Edinburgh in 1708; died at London in 1775.

The true interest and political maxims of the Republic of Holland. By John De Witt. London, 1746.

Candid and impartial consideration of the nature of the Sugar Trade. London, 1764.

A political survey of Britain; being a series of reflections on the situation, lands, inhabitants, revenues, colonies, and commerce of this island. London, 1774.

CAMPOMANES, DON PEDRO RODRIGUEZ, one of the most celebrated men whom Spain produced in the last century, was born in the Asturias, in 1723. He was famous for the most varied accomplishments, and for the extraordinary number of languages with which he was familiar, comprising most of the European ones, and Arabic. He raised himself to the highest offices in the State by his own merit. He had acquired the reputation of being the ablest and most upright lawyer in Spain, when Charles III. appointed him his advocate before the Royal Supreme Court of Castille. His works gained him the highest celebrity in Europe; but what most concerns us, that he was a most ardent and enlightened Economist. He pointed out the fatal dependence of Spain on the mines of Mexico and Peru. He maintained that the true power of Spain was in herself, in Europe. He earnestly advised that all burdens on industry should be removed, that foreign and domestic commerce should be managed in a liberal and enlarged spirit. He pointed out the immense evils to the State of so much land falling into the hands of the clergy, and being kept inalienable in mortmain. He advocated the entire freedom of trade in corn, and the suppression of mendicity.

All this was done many years before the *Wealth of Nations* was published.

He was appointed President of the Cortes, Director of the Royal Academy of History, and Minister of State. But when Count Florida Blanca was appointed minister, he was deprived of all his offices. He died in 1802.

Discurso preliminar sobre la marina, navegacion, comercio, y expediciones de la republica de Cartagena. Madrid, 1756.

Respuesta fiscal, sobre abolir la tasa y establecer el comercio de granos. Madrid, 1764.

Discurso sobre el fomento de industria popular. Madrid, 1774.

Memoria sobre los abastos de Madrid. Madrid, 1768.

Discurso sobre la educacion popular de los artesanos, y su fomento. Madrid, 1775.

Apéndice a la educacion popular. Madrid, 1775-77.

CAMPOS, DON RAMON.

La economia reducida a principios exactos. Madrid, 1797.

CAMUS, M.

Organisation sociale de tous les travailleurs, de l'agriculture, de l'industrie, du commerce, des arts et des sciences. Paris, 1848.

CANADA PAPER.

The case of the holders of reconnoissances given in exchange for Canada paper. London, 1770.

CANALE, MICHELE GUISEPPE.

Storia, civile, commerciale, e letteraria dei Genevesi dalle origini all'anno 1797. Geneva, 1844.

CANARD, NICOLAS FRANÇOIS. Formerly Professor at the Central School, and then at the College of Moulins. He wrote several works on Mathematics and Natural Philosophy.

Principes d'économie politique. Paris, 1802.

Mémoires sur les causes qui produisent la stagnation et le décroissement du commerce en France, et qui tendent à anéantir l'industrie commerciale, moyen simple de les faire cesser. Paris, 1826.

CANCALON, VICTOR.

Histoire de l'agriculture depuis les temps les plus reculés jusqu'à la mort de Charlemagne. Limoges, 1857.

CANCERIN, GEORGE DE, Count, was born at Hanau, in 1773. His father was director of the salt mines of Hesse. After passing a very brilliant career at college, he went to Russia. In 1812 he was appointed by the Emperor intendant-general of the army, and after the death of Camptenhausen, the comptroller-general of finance, he was placed at the head of the Russian finances, with very extensive powers. He enjoyed a very high reputation for probity and knowledge of finance.

Wellreichthum, Nationalreichthum und Staatswirtschaft. Munich, 1821-46.

Die Ökonomie der menschlichen Gesellschaften und das Finanzwesen. Stuttgart, 1845.

CANDALLE-BOISSIER, DE.

Examen de quelques questions d'économie politique sur le blé, la population, le crédit public et les impositions. Paris, 1816.

CANGA-ARGUELLES, DON JOSE, born in 1770, in the Asturias. He was deputy to the Cortes at Cadiz in 1812, and afterwards minister of finance. He was proscribed for a time on account of his liberal ideas. He died in 1843.

Diccionario de hacienda. Madrid, 1833.

Elementos de la ciencia de hacienda.

CANNABRICK, J. GOTTFRIED FRIEDRICH.

Statistisch-geographische Beschreibung des Königreichs Preussen. Berlin, 1827.

Statistisch-geographische Beschreibung des Königreichs Württemberg. Berlin, 1828.

CANNON, WILLIAM J.

The effect the repeal of the Corn Laws would have upon prices and rents, briefly considered. London, 1844.

CANTAGREL, F. One of the most active disciples of Fourier; was born in 1809.

Le fou du Palais Royal, dialogue sur la théorie phalanstérienne.

Du l'organisation des travaux publics et de la réforme des ponts et chaussées.

CANTALUPO, JANUARIO. An advocate of Free Trade.

Annua ossia piano economico di publica sussistenza. 1783.

CANTILLON, DE. An Irish merchant, and then a banker in Paris, and a contemporary and friend of John Law. He died in 1733.

Essai sur la nature du commerce en général. Paris, 1752.

CANTILLON, PHILIP. A merchant of London.

The analysis of trade, commerce, coin, bullion, banks, and foreign exchanges. London, 1759.

CAPEFIGUE, BAPTISTE HONORE RAYMOND.

Histoire des grandes opérations financières, banques, bourses, emprunts, &c. Paris, 1855.

CAPITAL.—This word is one of the great fundamental conceptions, upon the true settlement of which, a permanent Science of Political Economy is built.

2. It has been the too common practice hitherto in Political Economy for writers to treat the notion of arriving at scientific conceptions with neglect, if not with positive contempt. And it has been very common with them, either to begin with no definitions at all, or with such as are merely arbitrary, and not subjected to the laws of Inductive Logic.

3. But this is a very grievous error. Conceptions are not arbitrary, but they are founded in nature. There is nothing more admirable in Bacon than the earnestness and emphasis with which he enforces the doctrine that conceptions, notions, or definitions, are to be settled and ascertained by the very same process of induction that axioms, or general principles, *axiomata*, are.

4. And every great philosopher since has enforced the same doctrine. Thus the book in Locke's essay, which is generally admitted to be the most useful, is devoted to the very purpose of maintaining the necessity of accurate conceptions. Locke is fully of opinion that other sciences besides the mathematical, may be raised to the rank of exact sciences, by following the same course as has been pursued in them, namely, by an accurate investigation and settlement of their fundamental conceptions, and always using them in the same sense. Moreover he has remarked that it is not possible to arrive at general laws without a proper settlement of conceptions.

5. This truth is fully acknowledged by the cultivators of every Physical Science, and any one who is conversant with their history knows perfectly well that their early stages were full of vehement controversies about definitions, or conceptions. And it is just because their cultivators recognized this, and devoted all their energies to obtain true conceptions, that they have since made such wonderful progress, and that those who cultivate them are all agreed about them, and consequently their united efforts advance the science.

6. But Economists alone of all the cultivators of any science, have systematically despised this indispensable labor. And the result is just what might have been expected. Instead of being unanimous, and all employed in advancing the Science, they are at present very much employed in combatting one another; and we believe we may say with perfect truth, that there is not a single fundamental conception in Political Economy about which its cultivators have come to a unanimous agreement. And consequently, if they cannot agree about the meanings of terms, how is

it possible that they can ever agree in any general proposition whatever? True Conceptions are the foundation of true general laws.

7. In treating of the word Capital we shall not commence by laying down any arbitrary definition of it. We shall endeavour to make the conception the result of the investigation. The business before us is to discover the origin of the term, and the meaning attributed to it by those who used it first, and then to follow the current of usage down to the present time.

8. But we are by no means bound to adopt all that these writers may have said about it. Because it may possibly happen that some of them may have had no very clearly defined conception of it themselves. They may have mixed up accidental circumstances with essential ones, and have given the former undue prominence, so as to have obscured the fundamental idea.

9. Our business is, therefore, to consider what things the originators of the term applied it to, and why they applied it to them, to eliminate all accidental ideas, and to discover that *one* fundamental idea, which alone it is permitted to generalize.

10. And here let us lay down two Canons, which will be found to be of very extensive utility in the formation of Economical Conceptions and Axioms.

I. The fundamental Conceptions and Axioms of any Science must be perfectly general.

II. No general Conception, and no general Axiom, must contain any element involving more than *one* fundamental idea.

The truth of this is manifest, because if any element involves two or more ideas, it is qualified, and therefore it limits the generality of the conception, or the axiom, which is contrary to the first canon.

11. To exemplify the truth of this, let us take the definition or conception of force in Mechanics.

Force is any cause which produces, or tends to produce, motion.

This definition is perfectly general. It does not say force is any material, or corporeal, cause, but *any* cause, corporeal or incorporeal, and it is perfectly well known that an immense part of mechanical force is incorporeal, which can neither be seen, nor handled, but yet may be MEASURED.

So in Algebra, a quantity is anything that may be MEASURED, whatever its nature.

Now as an example of a conception of similar generality in Political Economy, let us take Aristotle's definition of Wealth (ARISTOTLE).

"We call wealth all (things) whose value is measured in money." In this we see that the term "wealth" fully answers the canon above stated. It is perfectly general. It does not say something corporeal, but anything.

But even this definition may be shortened, for the words "in money" are superfluous. Money, indeed, is the usual measure of value among civilized nations, but yet the value of things may be measured in other things, without money. Hence we may define Wealth thus,

Wealth is everything whose value may be measured.

By this means we obtain a conception of the same generality as those of physical science. And this is the standard to which all conceptions in Political Economy must be brought, before they

can be received as satisfactory, or fitted to form the basis of a science. Nor will any one familiar with the conceptions of Physical Science accept any of a less degree of generality.

12. But this degree of generality is only to be obtained by bestowing the same care, and by proceeding in the same manner, as is done to obtain general laws, or axioms. And the formation of conceptions is governed by exactly the same laws of Inductive Logic, as the formation of axioms. Moreover, having obtained the conception inductively, we must then proceed deductively, and discover all the classes of cases to which it is applicable. By this means only can the limits and the extent of the subject be defined.

13. We shall now trace the word Capital from its origin, through different languages, till we come to our own.

The words Principal, and Capital, come to us from the Greek *ἀρχαίον*, and *κεφάλαιον*, which both mean the same thing, namely, a principal, or capital, sum of money placed out at interest.

Thus Plato *de Legg* : v. 742—

Μὴ ἀποδιδόναι τῷ δανεισαμένῳ μήτε τόκον μήτε κεφάλαιον.

Not to return to the lender either the interest or the capital.

So *Æschines* against *Ctesiphon*, lxviii. 26,—

Καὶ τόκον ἤνεγκαν Δημοσθέει τοῦ δωροδοκῆματος δραχμὴν τοῦ μηνὸς τῆς μνᾶς, ἕως τὸ κεφάλαιον ἀπέδοσαν.

And they brought the interest of the bribe, namely, a drachma by the month for every mina, until they paid the capital.

So *Demosthenes*, p. 834, 5,—

Τῆς δέμου οὐσίας ὅλον τὸ κεφάλαιον ἀνηρήκασιν. They took away all the capital of my property.

So *Plutarch*, *Fabius*, c. 4,—

Τοῦτο τὸ κεφάλαιόν ἐστιν, ὅκτω μυριάδες δραχμῶν.

This is the capital, 80,000 drachmas.

So *Acts* xxii. 28,—

Ἐγὼ πολλοῦ κεφαλαίου τὴν πολιτείαν ταύτην ἐκτησάμην.

I bought this freedom for a great sum.

So *Chrysostom* says,—

Καὶ τὸ κεφάλαιον σὺν τόκῳ ἀνήλωσα.

And I spent the capital and the interest.

So, *Artemidorus*, l. 18. *Τὰ χρήματα κεφάλαια καλεῖται.* Money is called capital.

So, *Suidas* says, *Κεφάλαια, τὰ χρήματα.* Capital, money.

And in *Byzantium's* modern Greek Dictionary. *Κεφάλαιον; ἡ τοκισμένη ποσότης.* *Ἰταλ. τὸ καπιτάλε.* Capital, a quantity of money put out to interest. *Italian, capital—οἱ τόκοι υπερβαίνουν τὸ κεφάλαιον.* The interest exceeds the capital. —*ἔδικλίσασε τὰ κεφάλαια του.* He has doubled his capital.

Thus we see that in all these passages the word *κεφάλαιον* is applied to a sum of money, usually put out to interest, or invested for profit.

And *Stephens*, in his *Thesaurus*, defines the word thus—*κεφάλαιον*, caput, unde fructus, et reditus, manat. Capital, the source whence any profit, or rent, flows.

Now, a sum of money put out to interest is a special application of the general idea; and if we want to generalize it, we may say that it is an Economical Element applied to the purposes of profit.

14. We have not found any passage in which the word *κεφάλαιον* is used metaphorically in Greek for a source or fountain in general. But in Latin the word *caput* is constantly used, not only as a sum of money put out to interest, but as the source, or fountain, whence things spring.

Thus in Livy, VI. 15. "*De capite deducite, quod usuris pernumeratur.*"—"Take away from the Capital what is counted as interest."

Also VI. 36. "*Promulgare legem de ære alieno, ut deducto eo de capite, quod usuris pernumeratur esset.*"—"They published a law of debt, that all that was reckoned as interest should be deducted from the capital."

So, Horace, *Sat. I. 2, 14.* "*Quinas hic capiti mercedes exsecat.*"—"He squeezes out five times the usual interest for his capital."

In these places *caput* is used strictly as applied to money put out to interest, for which sors is often used.

But it is also constantly used as the source or origin of anything. Thus, in Plautus, *Curculio*, II. 1. 19; *Pseudolus*, I. 5. 31; *Rudens*, IV. 4. 34. "*Scelerum caput.*"—"O source, or fountain, of crimes"

Rudens, IV. 4. 55. "*Perjuri caput.*"—"O fountain of perjury."

Cicero, *Pro Plancio*, c. 23. "*Neque ego, si fontem maledicti reperietis, aut aut negligetis, aut dissimuletur, unquam postulabo; si quid sine capite manabit, aut si quid, &c.*"—"Nor will I, if ever you can discover the source of a calumny, ever ask you to neglect, or conceal it, if any spring up without an origin, &c."

And this metaphorical use of *caput* is common among the writers of *re rusticæ*, as the source, or root, of a plant. Thus, Cato, c. 51. "*Hæc omnia a capite propagari eximique oportet.*"—"All these must be taken and propagated from a root."

Also, c. 36. "*Capita majora.*"—"The greater roots."

Also, c. 33. "*Capita vitium per sementim ablaqueato.*"—"Dig about the roots of the vines at seedtime."

In Columella, *caput* is used for capital generally. Thus, XI. 1. 28. "*Ut et jacturam capitis amissi restituat.*"—"So as to restore the waste of lost capital"

A very common use of *caput* is the source or fountain whence a stream or river flows.

Thus, Palladius, *Aug. 8. 7.* "*Puteum fodies, et aquæ caput requies.*"—"Dig a well, and seek a spring of water."

15. In classical Latin we do not find that the word *capitale* was used in this sense, but it is in mediæval Latin. Thus we read in Ducange—

CAPITALE.—*Debitæ pecuniæ caput.* Papias, *capitale, caput pecuniæ*; and it is said to be equivalent to *sortes*, a usual Latin word for the capital of a sum lent, and he quotes several instances in which the word is used by mediæval writers in this sense.

In process of time this word was shortened into *capitale*, which was particularly applied to flocks and herds, because that was the principal

wealth. Hence by corruption, come our words *cattle*, applied to beasts, and *chattels* applied to things.

16. In Italian we find in the Dictionary of the *Accademici della Crusca*,

"*Capitale; la sorte principale, il fondo, e ancora quella quantità di danari, che pongono i mercatanti in su i traffichi, che si dice anche corpo.*"

"Capital; the principal sum, the fund, and also that quantity of money which merchants place in their business, which is also called *corpo*."

Thus in Latin, in mediæval Latin, and in Italian, the word *Capital* was originally applied to money put out at interest, or invested for profit, and it was then metaphorically applied to other things.

17. In French, the usage is the same. The Dictionary of the French Academy, 6th edition, 1835, says,—

Capital employé substantivement signifie le principal d'une dette, d'une rente. Il a payé les intérêts mais il doit encore le capital. Le capital d'une rente perpétuelle devient exigible en cas de faillite du débiteur.

Il se dit aussi d'un fond commercial des sommes que l'on fait valoir dans quelque entreprise.

Capitaliste; celui, ou celle, qui a des capitaux, des sommes d'argent considérable, et qui les fait valoir dans les entreprises de commerce, d'agriculture, de manufacture, ou de finance.

Hence the general idea is, that it is a source from which some profit springs.

18. Let us now see what the principal Economists say about the word.

Turgot, *Sur la formation et la distribution des Richesses*, § xxxi, introduces the word. "*Ce moyen consiste à vivre de son Capital, ou plutôt de l'intérêt qu'on en tire en le prêtant.*"

Where it evidently means money put out to interest. But at § lix, he gives rather a different meaning.

"*Quiconque, soit par le revenu de sa terre, soit par les salaires de son travail, ou de son industrie, reçoit chaque année plus de valeurs qu'il n'a besoin d'en dépenser, peut mettre en réserve ce superflu, et l'accumuler: ces valeurs accumulées sont ce qu'on appelle un capital.*"

He then shews how this capital in money may be invested in anything, such as an estate in land, "*il est absolument indifférent que cette somme de valeurs, ou ce capital, consiste en une masse de métal, ou en toute autre chose, puisque l'argent représente toute espèce de valeur, comme toute espèce de valeur représente l'argent. Le possesseur d'un capital peut donc d'abord l'employer à acheter des terres.*"

Thus Turgot introduced the notion of capital being the fruit of the accumulation of anterior labor. Primarily money, and then any other things, such as farms, or fonds de terre, or merchandise, and he says, &c., "*Nous avons vu que l'argent n'entre presque pour rien dans la somme totale des capitaux existants, mais il entre pour beaucoup dans la formation des capitaux. En effet, presque toutes les épargnes ne se font qu'en argent; c'est en argent que les revenus sont payés aux propriétaires, que les avances et les profits rentrent aux entrepreneurs en tout genre; c'est donc de l'argent qu'ils épargnent, et l'accroissement annuel des capitaux se fait en argent,*

mais tous les entrepreneurs n'en font d'autre usage que de le convertir sur-le-champ dans différentes natures d'effets, sur lesquels roule leur entreprise; ainsi cet argent rentre dans la circulation; et la plus grande partie des capitaux n'existent qu'en effets de différentes natures."

19. Adam Smith, *Wealth of Nations*. Book II, chap. I, says: "When the stock which a man possesses is no more than sufficient to maintain him for a few days, or a few weeks, he seldom thinks of deriving any revenue from it. He consumes it as sparingly as he can, and endeavours by his labor to acquire something, which may supply its place, before it be consumed altogether. His revenue is, in this case, derived from his labor only. This is the state of the greater part of the labouring poor in all countries."

"But when he possesses stock sufficient to maintain him for months, or years, he naturally endeavours to derive a revenue from the greater part of it, reserving only so much for his immediate consumption, as may maintain him till this revenue begins to come in. His whole stock, therefore, is divided into two parts. That part which he expects is to afford him this revenue is called his CAPITAL. The other is that which supplies his immediate consumption, and which consists either, first in that portion of his whole stock which was originally reserved for this purpose; or secondly, in his revenue from whatever source derived, as it gradually comes in; or thirdly in such things as had been purchased by either of these in former years, and which are yet not entirely consumed, such as a stock of clothes, household furniture, and the like."

Thus Adam Smith fully shews that he considers capital to be an economic element employed in a particular way, and his description certainly implies the necessity of anterior accumulation. We shall see further on what he includes under the title of capital.

20. We shall next take J. B. Say, who says, *Traité d'économie politique*, p. 68. Edit. Guillaumin.

"En continuant à observer les procédés de l'industrie, on ne tarde pas à s'apercevoir que seule, abandonnée à elle-même, elle ne suffit point pour créer de la valeur aux choses. Il faut de plus, que l'homme industrieux possède des produits déjà existans, sans lesquels son industrie, quelque habile qu'on la suppose, demeurerait dans l'inaction. Ces choses sont:—

"1. Les outils, les instruments des différens arts. Le cultivateur ne saurait rien faire sans sa pioche, ou sa bêche, le tisserand sans son métier, le navigateur sans son navire.

"2. Les produits qui doivent fournir à l'entretien de l'homme industrieux, jusqu'à ce qu'il ait achevé sa portion de travail dans l'œuvre de la production. Le produit dont il s'occupe, ou le prix qu'il en tirera, doit, à la vérité, rembourser cet entretien, mais il est obligé d'en faire continuellement l'avance.

"3. Les matières brutes que son industrie doit transformer en produits complets. Il est vrai que ces matières lui sont quelquefois données gratuitement par la nature; mais le plus souvent elles sont des produits déjà créés par l'industrie, comme des semences que l'agriculture a fournies, des métaux que l'on doit à l'industrie du mineur, et

du fondeur, des drogues que le commerçant apporte des extrémités du globe. L'homme industrieux que les travaux, est de même obligé de faire l'avance de leur valeur.

"La valeur de toutes ces choses compose ce qu'on appelle un *capital productif*."

"Il faut encore considérer comme un capital productif la valeur de toutes les constructions, de toutes les améliorations répandues sur un bien-fonds, et qui en augmentent le produit annuel, la valeur des bestiaux, des usines, qui sont des espèces de machines propres à l'industrie."

"Les monnaies sont encore un capital productif toutes les fois qu'elles servent aux échanges, sans lesquels la production ne pourrait avoir lieu. Semblables à l'huile qui adoucit les mouvemens d'une machine compliquée, les monnaies, répandues dans tous les rouages de l'industrie humaine, facilitent des mouvemens qui ne s'obtiendraient point sans elles."

21. J. B. Say was one of the first of modern Economists to maintain that immaterial products are within the domain of Political Economy. At page 123, he says,—

"Un médecin vient visiter un malade, observe les symptômes de son mal, lui prescrit un remède, et sort sans laisser aucun produit que le malade ou sa famille puissent transmettre à d'autres personnes, ni même conserver, pour la consommation d'un autre temps."

"L'industrie du médecin a-t-elle été improductive? Qui pourrait le penser? Le malade a été sauvé. Cette production était-elle incapable de devenir la matière d'un échange? Nullement, puisque le conseil du médecin a été échangé contre ses honoraires; mais le besoin de cet avis a cessé dès le moment qu'il a été donné. Sa production était de le dire; sa consommation, de l'entendre; il a été consommé en même temps que produit."

"C'est ce que je nomme un *produit immatériel*."

"L'industrie d'un musicien, d'un acteur, donne un produit du même genre; elle vous procure un divertissement, un plaisir, qu'il vous est impossible de conserver, de retenir, pour le consommer plus tard, ou pour l'échange de nouveau contre d'autres jouissances."

Say says, that Adam Smith denies the name of products to such things, and classes the labor employed in them as unproductive. Say dissents from this, and maintains it is truly productive. He says, "Je ne trouve pas raisonnable de prétendre que le talent du peintre soit productif, et que celui du musicien ne le soit pas."

However, though Say maintains the existence of these immaterial products, at p. 125 he denies them the name of Capital.

"De la nature des produits immatériels, il résulte qu'on ne saurait les accumuler, et qu'ils ne servent point à augmenter le capital national. Une nation où il se trouverait une foule de musiciens, de prêtres, d'employés, pourrait être une nation fort divertie, bien endocrinée, et admirablement bien administrée; mais voilà tout. Son capital recevrait de tout le travail de ces hommes industrieux aucun accroissement direct, parce que leurs produits seraient consommés à mesure qu'ils seraient créés."

And in the epitome at the end of the work, p. 569, he says,—

"CAPITAL. Somme des valeurs employées à

faire des avances à la production. Ces valeurs, qui sont originairement le fruit de l'industrie aidée de ses instrumens, ne se perpétuent, et ne forment un fonds *productif* permanent, qu'autant qu'elles sont consommées reproductivement. Du moment que, soit par l'amour des jouissances présentes, soit par l'impéritie de l'*entrepreneur*, qui les emploie, elles ne renaissent pas dans d'autres produits, le capital est dissipé, en tout ou en partie.

"Tont capital transmissible est composé de *produits matériels*; car rien ne peut passer d'une main dans une autre, sinon des matières visibles. Un crédit ouvert, des effets de commerce, ne sont que des signes des valeurs matérielles actuellement possédées par celui, qui les cède, pour un temps, ou pour toujours, à celui qui les accepte."

We must request the especial attention of our readers to these extracts; Say maintains that immaterial products are not capital because they are not capable of accumulation; and he says that all capital must be material, because nothing but something *material* can be transmitted from hand to hand.

22. In his *Cours complet d'économie politique*, Vol. I. p. 91, in again censuring Adam Smith for excluding immaterial products, he says, "La science et le talent d'un médecin, d'un chirurgien, d'un professeur, ne sont-ils pas des capitaux acquis et qui donnent un revenu? Les leçons orales qu'ils ont reçues, n'étaient cependant attachées à aucun produit matériel."

At p. 130, he says,—

"Or, Messieurs, les fonctions d'un capital sont de fournir la valeur de ces avances; de se laisser consommer pour renaître sous d'autres formes; de se laisser consommer de nouveau pour renaître encore; et ainsi de suite éternellement, pourvu que la même valeur capitale soit assez habilement employée pour renaître constamment, et pour être réemployée d'une matière productive. En moins de mots, un capital est un somme de valeurs consacrées à faire des avances à la production."

Now, how can this be a necessary duty of capital, when Say admits that money may be used as capital? Money is not destroyed, which he means by *consommer*.

At p. 137, he says,—

"La nature des capitaux, la nature de leurs fonctions, nous découvrent des vérités assez importantes. L'une d'elles est que les capitaux productifs ne consistent point en valeurs fictives et de convention, mais seulement en valeurs réelles et intrinsèques, que leurs possesseurs jugent à propos de consacrer à la production. En effet, on ne peut acheter des services productifs qu'avec des objets matériels, ayant une valeur intrinsèque; on ne peut amasser en capitaux et transmettre à une autre personne que des valeurs incorporées dans les objets matériels." And yet, in a note to this passage, he says, "Il y a des capitaux qui ne sont pas incorporées dans les choses matérielles, comme la clientèle d'un notaire, d'une entreprise commerciale; mais cette portion de capital est une valeur très réelle, et non pas seulement un signe comme ceux qui, selon certaines personnes, peuvent remplacer les capitaux."

And at page 531 of the same volume he says,—

"Il faut comprendre parmi les capitaux plu-

sieurs biens qui ont une valeur, quoiqu'ils ne soient pas matériels. Le cabinet d'un avocat, d'un notaire, la chalandise d'une boutique, la réputation d'une enseigne, le titre d'un ouvrage périodique, sont incontestablement des biens; on peut les vendre, les acquérir, en faire l'objet d'un contrat; et ce sont des biens capitaux parceque ce sont les fruits accumulés d'une industrie. Un avocat, par la sagesse de ses avis, par son assiduité et ses autres qualités, a fait concevoir au public une bonne opinion de son cabinet; cette bonne opinion lui donne droit à de plus forts honoraires; ce supplément de profit est le revenu d'un capital appelé *réputation*; et ce capital est le fruit des soins, et des peines, que l'avocat a pris pendant plusieurs années."

23. We must beg our readers to observe the astounding self-contradiction contained in these passages. In the former ones he denies that immaterial products are capital, or that anything but material products can be accumulated, and transmitted from hand to hand. In the latter, he maintains that these immaterial products are capital, that they are the fruit of accumulated industry, and that they may be transferred from hand to hand! Now, unfortunately, this is only one example among many of the self-contradictions of Economists; and then it is said that Political Economy cannot be made an exact science!

24. At page 154 he very justly says that education is capital.

"Une autre espèce d'épargne est celle qu'on fait en se procurant des talens, en élevant ses enfans, &c. Si ces talens sont lucratifs, ils représentent un capital dont la rente est dans les profits qu'ils pourront procurer. * * * Une famille même de simples manouvriers, qui a les moyens d'élever un enfant jusqu'à l'âge d'homme, mais qui n'a pas les moyens de lui donner aucun talent, n'en a pas moins accumulé un capital au profit de ce fils; car, par une suite de privations, et d'épargnes sur ses autres dépenses, elle en a fait un homme capable de gagner un salaire quelconque, qui est le revenu d'un capital appelé *homme*; car un homme fait, quel qu'il soit, est un *capital accumulé*."

At p. 163. "Or cette population-là, résultat des avances successivement faites pour la mettre à ce point, est elle même un capital accumulé. Les richesses des nations se réduisent donc à ces capitaux, et les capitaux ne s'acquerraient que par l'épargne. C'est elle seule qui a fait l'opulence de la Hollande, de l'Angleterre, qui a fait la nôtre, et qui la portera, j'espère, fort au-delà de ce que nous la voyons."

"C'est la fausse idée qu'on ne pouvait épargner que les produits matériels pour en faire des capitaux durables, qui a empêché Adam Smith, et après lui plusieurs écrivains Anglais, de regarder comme productif, les travaux qui ne logent de valeur dans aucune matière; comme ceux d'un instituteur, d'un avocat, d'un médecin."

"Ces auteurs ne se sont pas aperçus que, bien que de semblables travaux soient nécessairement consommés à mesure qu'ils sont exécutés, ils peuvent être consommés d'une manière reproductrice; d'une manière, conséquemment, qui perpétue la valeur qu'ils ont eu, et peut en faire un capital. Le capital d'un artiste est son talent; or son talent est né des leçons qu'ils a reçues. Les

leçons ont été consommées, mais il est né de cette consommation une contre-valeur, mise en réserve dans la tête d'élève et devenue un capital productif. Une nation où il y a beaucoup de talens acquis, soit dans les beaux arts, soit dans les arts industriels, est incontestablement plus riche qu'une autre nation où les mêmes talens n'existent pas. Elle obtient tous les ans, en raison de cette supériorité de talens, de plus gros profits, des revenus plus considérables."

J. B. Say in the preceding extract blames Adam Smith for excluding immaterial products from national wealth. If he had looked to his own previous treatise, he would have found some one else to blame, nearer than Adam Smith.

At p. 520, he says,—

"Sans une classification des choses possédées qui les embrasse toutes, en faisant un évaluation des biens d'une nation, d'une communauté, d'un particulier, nous ne serions jamais certains de la faire complète. * * *

"Nos propriétés se composant de nos biens, quels qu'ils soient, comprennent nos biens naturels en même temps que nos richesses sociales."

And after going through several descriptions of personal talents, he says,—

"Ce que je vous ai dit suffit, je pense, pour vous convaincre, messieurs, que les facultés industrielles sont des propriétés du même genre que toutes les autres, et que ce n'est qu'en les respectant à l'égard de toutes les autres qu'on obtient tous les avantages sociaux attachés au droit de propriété. Par la même raison cette espèce de propriété, quoiqu'elle puisse difficilement se traduire en chiffres, fait néanmoins partie des richesses générales d'une nation. Une nation où les capacités industrielles sont plus nombreuses, plus éminentes qu'ailleurs, est une nation plus riche."

Of the two treatises from which these extracts are taken, the latter was published very considerably later than the first, and consequently in the remarkable self contradiction displayed in them, we may fairly take the latter as the more matured opinion of the author.

26. We shall now see what Ricardo says.

At p. 16, *Principles of Political Economy*, 3rd edition, we meet with the following:—

"Even in that early state to which Adam Smith refers, some capital, though possibly made and accumulated by the hunter himself, would be necessary to enable him to kill his game." One would imagine, that on the first introduction of such an important word as Capital, some little explanation would have been given of it. By no means. The bewildered reader goes on, and on, and on, all the while wondering what this strange word can mean, till at last, at page 89, no less than 73 pages after it has been first introduced, he finds this paragraph,—

"Capital is that part of the Wealth of a country which is employed in production, and consists of food, clothing, tools, raw materials, machinery, &c., necessary to give effect to labor."

Here at length we might suppose that light had broken in upon us, but, on the contrary, it is darker than ever; for, instead of one unexplained word, we have two, *wealth* and *production*. What is *wealth*? and what is *production*? Of these we may gather that *wealth* means material things exclusively, but what *production* is we have not

been able to discover from the whole of Ricardo's work.

27. Malthus, *Definitions of Political Economy*, p. 237, defines capital to be,—

"That portion of the stock of a country which is kept or employed with a view to profit in the production or distribution of wealth;" and he defines stock to be accumulated wealth, either reserved by the consumer for his consumption, or kept or employed with a view to profit, and he defines wealth to consist entirely of material objects.

28. Mr. Senior, *Political Economy*, p. 59, says,—

"The term Capital has been so variously defined, that it may be doubtful whether it have any generally received meaning. We think, however, that in popular acceptation, and in that of Economists themselves, when they are not reminded of their definitions, that word signifies *an article of wealth, the result of human exertion, employed in the production or distribution of wealth*. We say the result of human exertion, in order to exclude those productive instruments to which we have given the name of natural agents, and which afford not profit, in the scientific sense of that word, but rent.

"It is evident that Capital, thus defined, is not a simple productive instrument; it is in most cases the result of all the three productive instruments combined. Some natural agent must have afforded the material, some delay of enjoyment must in general have reserved it from unproductive use, and some labor must in general have been employed to prepare and preserve it. *By the word abstinence we wish to express that agent, distinct from labor and the agency of nature, the concurrence of which is necessary to the existence of Capital, and which stands in the same relation to Profit as Labor does to Wages*. We are aware that we employ the word abstinence in a more extensive sense than is warranted by common usage. Attention is usually drawn to abstinence only when it is not united with labor. It is recognized instantly in the conduct of a man who allows a tree, or a domestic animal, to attain its full growth; but it is less obvious when he plants the sapling, or sows the seed corn. The observer's attention is occupied by the labor, and he omits to consider the additional sacrifice made when labor is undergone for a distant object * * *

"We have already defined Capital to be an article of wealth, the result of human exertion, employed in the production or distribution of wealth; and we have observed that each individual article of wealth is in general the result of a combination of all the three great instruments of production—labor, abstinence, and the agency of nature."

At p. 134, Mr. Senior includes intellectual capital,—

"Even in our present state of civilization, which, high as it appears by comparison, is far short of what may be easily conceived, or even of what may confidently be expected, the intellectual and moral capital of Great Britain far exceeds all her material capital, not only in importance, but even in productiveness. The families that receive mere wages probably do not form a fourth of the community; and the comparatively large amount of the wages even of these is principally owing to

the capital and skill with which their efforts are assisted and directed by the more educated members of the society. Those who receive mere rent, even using that word in its largest sense, are still fewer; and the amount of rent, like that of wages, principally depends on the knowledge by which the gifts of nature are directed and employed. The bulk of the national revenue is profit, and of that profit the portion which is mere interest on material capital, probably does not amount to one-third. The rest is the result of personal capital, or in other words of education.

"It is not on the accidents of soil or climate, or on the existing accumulation of the material instruments of production, but on the quantity and diffusion of this immaterial capital, that the wealth of a country depends. The climate, the soil, and the situation of Ireland have been described as superior, and certainly are not much inferior to our own. Her poverty has been attributed to the want of material capital; but were Ireland now to exchange her native population for seven millions of our English North countrymen, they would quickly create the capital that is wanted. And were England North of Trent, to be peopled exclusively by a million of families from the West of Ireland, Lancashire and Yorkshire would still more rapidly resemble Connaught. Ireland is physically poor because she is morally and intellectually poor, because she is morally and intellectually uneducated. And while she continues uneducated, while the ignorance and violence of her population render persons and property insecure, and prevent the accumulation and prohibit the introduction of capital, legislative measures, intended solely and directly to relieve her poverty, may not indeed be ineffectual, for they may aggravate the disease, the symptoms of which they are meant to palliate, but undoubtedly will be productive of no permanent benefit. Knowledge has been called power; it is far more certainly wealth. Asia Minor, Syria, Egypt, and the northern coast of Africa, were once among the richest, and are now among the most miserable countries in the world, simply because they have fallen into the hands of a people without a sufficiency of the immaterial sources of wealth to keep up the material ones."

It will be seen further on in this article how entirely we agree in Mr. Senior's opinions on this point.

29. Mr James Mill, *Elements of Political Economy*, 3rd. Edition, p. 16 says,—

"We have already observed that labor performs its operations, either simply, by the unaided powers of the human body; or with the use of instruments, which augment not only the quantity, but often also the accuracy and precision of its results.

"As examples of the earliest and simplest of the instruments, contrived for this purpose, we may mention the bow and arrow, and the sling, of the huntsman. The spade is an instrument easily invented for turning the soil; and a certain rude machine, to which the force of cattle may be applied, and which is the first form of a plough, suggests itself at an early stage of improvement.

"From these beginnings men proceed, inventing one instrument after another, the axe, the hammer, the saw, the wheel, the wheel-carriage, and so on, till they arrive at last at that copious

supply of complicated machinery by which labor is rendered productive in the most artificial states of society. The provision which is made of these instruments is called Capital.

"This, however, is not the whole of what is denominated Capital. Labor in its earliest stage is not employed upon any materials but such as nature presents, without any preparation at the hands of man. When the savage climbs the tree, to gather the fruit; when the huntsman tears down the branch to form his club or his bow, he operates upon materials which are prepared for him by the hands of nature. At a subsequent stage in the progress of industry, the materials upon which labor is employed, have generally been the result of previous labor. Thus the flax and the cotton, which are to be manufactured into cloth and muslin, have been the result of the labor of agriculture; the iron has been the result of the labors of the miner and smelter, and so of other things. The materials upon which labor is to be employed, when they have been the result of previous labor, are also denominated Capital.

"When we speak of labor as one of the instruments of production, and of capital as the other, these two constituents, namely, the instruments which aid labor, and the materials upon which it is employed, are all that can be correctly included in the idea of Capital. It is true that wages are in general included under that term. But in that sense labor is also included, and can no longer be spoken of as an instrument of production apart from capital.

"We have already seen, that whenever labor is spoken of as a separate, distinct instrument of production, the idea of the subsistence, or consumption of the laborer, for which wages is but another name, is included in the idea of the labor.

"Having thus endeavoured to annex precise ideas to the terms Capital and Labour, a matter of the utmost importance in the study of Political Economy, and to distinguish their respective departments in the business of production, it is only further necessary to advert to the origin of capital and the laws of its accumulation.

"It is easy to discover, that the source from which capital is ultimately derived is labor. Production of necessity begins with hands. There can be no instrument till it is made; and the first instrument had no previous instrument to be made with.

"The first portion of Capital, therefore, was the result of pure labour, without the co-operation of Capital."

30. No person familiar with the method of proceeding in Natural Philosophy can fail to see the utterly unscientific character of the preceding extract. It is a mere arbitrary enumeration of what Mr. Mill considers to be Capital; but there is no *general idea* given of it, which is what we want. It is perfectly easy to see the incorrectness of the assertion of the last paragraphs. Production does not begin with hands. Did the hands of man produce the first cattle, the first corn, the first fruit trees? It is perfectly clear that the first capital existed *before* labor, as we have shewn afterwards.

31. Mr. McCulloch has also introduced an arbitrary definition of Capital. *Principles of Political Economy*. 4th edit., p. 100.

"The Capital of a country consists of those

portions of the produce of industry existing in it, which may be DIRECTLY employed either to support human beings, or to facilitate production. . . ." The italics are the author's own. From this it evidently appears that Mr. McCulloch means by Capital, simply the quantity of things already existing upon which labor has been employed. He allows that this definition differs entirely from that of Adam Smith, and we believe from that of any other Economist whatever, and we have no hesitation in rejecting it.

32. Rossi entirely dissents from the definition of Mr. McCulloch. *Cours d'Economie Politique*, T. III. p. 279.

"L'œuvre de la production exige, outre le travail, le concours du capital. Nous avons souvent dit ce qu'on entend par capital. Dans le langage de la science, ce n'est pas une richesse quelconque, ce n'est pas une valeur quelconque, c'est uniquement cette partie des valeurs qui est appliquée à la production. Encore une fois, dans le langage commun, on appelle du nom de capital les pierres précieuses qu'une femme a dans son écrin, les tableaux qu'un amateur a dans sa galerie; mais le capital, instrument de la production, n'est autre chose que cette partie des valeurs qui est appliquée à la reproduction de la richesse.

"Ainsi, si en nous demande—'Les machines sont-elles un capital?' Il n'y a aucun doute. 'Les animaux appliqués au travail, sont-ils un capital?' Il n'y a aucun doute. 'Les hangars, boutiques, maisons servants au travail, sont-ils un capital?' Il n'y a encore aucun doute. 'L'argent monnayé est-il un capital?' La réponse est la même. Je le répète, c'est par la destination, et uniquement par la destination, qu'on sait si une partie quelconque des valeurs nationales est ou n'est pas un capital.

"Ainsi l'argent que l'avare enfouit dans son jardin, n'est pas un capital tant qu'il reste enfoui parce qu'il ne sert pas à la production, parce qu'il n'est pas disponible, parce qu'il n'est pas offert sur le marché comme instrument de la production. Mais l'argent qu'un fabricant peut emprunter, l'argent qu'un capitaliste est toujours disposé à prêter, pourvu qu'on lui offre des garanties, des sûretés suffisantes, cet argent-là est un capital."

33. Mr. John Stuart Mill, *Principles of Political Economy*, B.I.C. IV. says that there are three requisites to production, labor, natural agents, and a stock of the products of former labor previously accumulated. "This accumulated stock of the produce of labor is termed capital. * * *

"Capital, by persons wholly unused to reflect on the subject, is supposed to be synonymous with money. To expose this misapprehension would be to repeat what has been said in the introductory chapter. Money is no more synonymous with capital than it is with wealth. Money cannot in itself perform any part of the office of capital, since it can afford no assistance to production. To do this it must be exchanged for other things; and anything which is susceptible of being exchanged for other things, is capable of contributing to production in the same degree. What capital does for production, is to afford the shelter, protection, tools, and materials which the work requires, and to feed, and otherwise maintain the laborers during the process. Speaking of the manufacturer, he says, 'His money and finished goods, however, are not wholly capital,

for he does not wholly devote them to these purposes; he employs a part of the one, and of the proceeds of the other, in supplying his personal consumption and that of his family, or in hiring grooms and valets, or maintaining hunters and hounds, or in educating his children, or in paying taxes, or in charity. What then is his capital? Precisely that part of his possessions whatever it be, which he designs to employ in carrying on fresh production. It is of no consequence that a part or even the whole of it, is in a form in which it cannot directly supply the wants of laborers.

"Suppose, for instance, that our capitalist is an hardware manufacturer, and that his stock in trade, over and above his machinery, consists at present wholly in iron goods. Iron goods cannot feed laborers. Nevertheless by a mere change of the destination of these iron goods, he can cause laborers to be fed. Suppose that with a portion of the proceeds he intended to maintain a pack of hounds, or an establishment of servants; and that he changes his intention, and employs it in his business, paying it in wages to additional workpeople. These workpeople are enabled to buy and consume the food which would otherwise have been consumed by the hounds, or by the servants, and thus, without the employer's having seen or touched one particle of the food, his conduct has determined that so much more of the food existing in the country has been devoted to the use of productive laborers, and so much less consumed in a manner wholly unproductive.

* * * *The distinction then, between Capital and not-capital, does not lie in the kind of commodities, but in the mind of the capitalist—in his will to employ them for one purpose rather than for another; and all property, however ill adapted in itself for the use of laborers, is a part of capital as soon as it, or the value to be received from it, is set apart for productive employment. The sum of all the values so destined by their respective possessors, composes the capital of the country. Whether all those values are in a shape directly applicable to productive uses, makes no difference. Once appropriated to that end, they do not fail to find a way of transforming themselves into things fitted to be applied to it."*

Thus Mr. Mill fully agrees in the distinction that capital is not any particular thing, but that whether an article is capital or not, entirely depends on the method in which it is employed, and he also says that ANYTHING which can be exchanged may be Capital,—an admission we shall find hereafter, to be of the most important consequence.

34. M. Coquelin, in the *Dictionnaire d'Economie Politique*, art. Capital, says "on peut dire d'une manière générale que le capital est le fruit de l'accumulation. C'est l'ensemble des valeurs antérieurement soustraites à la consommation improductive, et que le passé a léguées au présent. * * * Sauf quelques écrivains qui ne font pas autorité dans la science, tous les économistes s'accordent à ne pas comprendre sous la dénomination de capital la terre, ni les instruments donnés par la nature, mais seulement les valeurs créées de main d'homme, et antérieurement accumulées."

35. On comparing the definitions of Capital, as used by these various writers, we may gather dis-

tinctly that, with few exceptions, they acknowledge that nothing is absolutely capital, but that whether it is so or not, depends upon the method of its use, or employment.

This would be perfectly satisfactory as a general definition, but it will be seen, they all clog this definition with the limitation that it is the fruit of past labor. Thus we think that the spirit of these definitions may be expressed thus,—

Capital is wealth accumulated from past human labor, and employed in a particular manner.

36. Upon looking at this definition it immediately strikes us that it violates the first canon laid down above; it is not general, it is limited, for it is not wealth in general, but wealth the fruit of past human labor.

The question is to consider whether this limitation is necessary and essential, or whether it may be rejected.

Now we observe that though a great portion of existing capital may be the result of human labor, it is perfectly manifest that the first capital men possessed, was *not* the result of human labor.

When man was first placed upon the earth, it is undoubtedly certain that he found the means of support already prepared for him. This is a conclusion that all agree in. The most ardent sticklers for the literal interpretation of the first chapter of Genesis, and the most sceptical of geologists, are unanimously of opinion, that however, or whenever, man appeared upon the earth, he found fruits, and corn, and cattle, and fish *already* on the earth prepared for his use. No one can allege that the first cattle, the first fruits, or the first corn, were the result of human labor.

Mankind therefore employing part of these for immediate use, and setting aside and reserving another portion for increase, for reproduction, for producing something for future use, immediately turned them into CAPITAL, which was not the result of human labor.

37. Moreover, though flocks and herds may be tended and appropriated, and may be kept for the purposes of increase, and that increase may be again applied to the purposes of increase, it is quite clear that it is a most violent abuse of language to say that cattle, a species of capital—in fact, a corruption of the word—are the fruits of accumulated human labor.

We may say the same of fruit-bearing trees; they are capital, but cannot properly, as we think, be called the fruits of human labor.

We may say the same of corn, though about that there is more human labor employed; it seems to us to be an incorrect use of language to call corn the result of human labor. Man, indeed, may plant and water, but is it man that makes the corn grow? Paul may plant, and Apollos may water, but it is God that giveth the increase.

38. Now, no doubt, it is undeniably true that a great quantity of capital is the result of accumulated human labor; but as we have shewn that all original capital, and a great portion of existing capital, is not the result of human labor, it manifestly follows that the limitation, "the accumulation of past human labour," is not the *essence*, but the *accident* of capital, and must be rejected from the general definition. It is a very strong instance of the great general law in Inductive Logic, that in framing conceptions and

axioms the *negative* instance is the stronger of the two.

In fact, it is quite clear that to insert that qualification, "the produce of past human labor," is to give a *description* of how it was got; and many authors content themselves with telling us the things they consider to be Capital. Now, we do not want a *description* of how capital is got, or an *enumeration* of what things are Capital, but we want a *CONCEPTION* or *DEFINITION* of what Capital is.

39. We conclude, therefore, that the definition of Capital must be disembarassed of the condition with which it is clogged, and we obtain our first generalisation, that Capital is any Economical Element appropriated to the purpose of profit, or increase.

40. In fact, this is in exact accordance with Mr. Senior's remark, p. 67. "But Economists are agreed that *WHATEVER* gives a profit is properly termed CAPITAL."

Now, why should Mr. Senior, having obtained this excellent definition, which fulfils the conditions of a true scientific conception, in another place limit capital "to be an article of Wealth, the result of human exertion?" It is perfectly clear that the very terms of the definition include labor itself as capital. A workman's labor gives him a profit, it is therefore his capital.

41. And so Mr. J. S. Mill, as we have seen above, lays down the general proposition, that *ANYTHING* that may be exchanged may be used as capital. Why, then, having obtained this general conception, does he proceed to clog it with limitations and conditions?

We shall see further on in this article, that there are abundance of things which produce a profit, and which may be exchanged, which are in no way whatever the result of human labor.

42. We apply to the word CAPITAL, as well as to PRODUCTION and CONSUMPTION, a similar remark to what Dr. Whately has applied to Value. *Lectures on Political Economy*, p. 166.

"It may be worth observing that, in examining, framing, or altering definitions on Political Economy, you will find in most persons a proneness (as in other subjects also) to introduce *accidental* along with, or instead of, *essential* circumstances: I mean that the notion they attach to each term, and the explanation they would give of it, shall embrace some circumstances, *generally, but not always*, connected with the thing they are speaking of; and which might accordingly (by the strict account of an accident), be absent or present, the essential character of the subject remaining the same. A definition framed from such circumstances, though of course incorrect, and likely at some time or other to mislead us, will not unfrequently obtain reception, from its answering the purpose of a correct one, at a particular time and place. * * * A specimen of that introduction of accidental circumstances, which I have been describing, may be found, I think, in the language of a great number of writers respecting Wealth and Value, who have usually made *labor* an essential ingredient in their definition. Now, it is true, *it so happens*, by the appointment of Providence, that valuable articles are, in *almost* all instances, obtained by Labor but still this is an *ACCIDENTAL*, and not an *ESSENTIAL* circumstance."

And this is the very cause which has had such a blighting effect on the progress of Political Economy. It is the want of the spirit of generalization. It is this spirit alone which can ever elevate Political Economy to the rank of an exact science, and it is the want of it, or indeed the general want of the perception of its necessity, that has kept the science in so controverted a state at the present day.

We return then to our general conception of the term Capital.

Capital is an Economical Element devoted to the purposes of profit.

Hence anything that is exchangeable, whatever its nature be, any Economical Element whatever, may be Capital.

And any source whatever which gives a profit is Capital.

43. But this opens the question.—What is an Economic Element; or an Economic Entity?

It is well known that a very wide division of opinion prevails among Economists, as to whether the word "Wealth" or Economic Elements, is to be restricted to *material* things, or includes incorporeal elements, which may be bought and sold.

We are now, therefore, to inquire whether incorporeal elements are to be admitted into Political Economy.

It is somewhat remarkable that the earliest existing treatise on an economical subject, is for the express purpose of proving that mental products are capable of being exchanged for meat, drink, clothing, &c., and that they are to be considered in all respects *wealth*, as much as material products. (*ÆSCHINES SOCRATICUS*).

The very same doctrine, too, may be deduced from Aristotle's definition. He calls everything whose value may be measured in money, *wealth*. This definition manifestly includes everything which is exchangeable, whatever its nature be, whether corporeal or incorporeal.

44. In modern times, when the science was revived by Turgot and Quesnay, the Physiocrats, whose doctrines have certainly been misunderstood on some points, would appear to have excluded immaterial wealth from Political Economy.

But Beccaria expressly included incorporeal elements. He says that Political Economy treats of the exchange of products with products, products with services, and services with services. He thus treats incorporeal elements exactly in the same light as material ones. He also marked out one part of his treatise for immaterial products, but he never completed it.

45. It has commonly been supposed, that Adam Smith excludes intellectual, or mental, products from Political Economy; but we think that upon examination, his doctrine in one part of his work will be found to be inconsistent with that in another. Thus, in speaking of Capital, he expressly includes in *Fixed Capital*, Book II., chap. I., "the acquired and useful abilities of all the inhabitants or members of the society. The acquisition of such talents by the maintenance of the acquirer during his education, study, or apprenticeship, always costs a real expense, which is a *capital fixed and realised*, as it were, in his person. These talents, as they make a part of his fortune, so do they likewise of that of the society to which he belongs. The improved dexterity of a workman may be considered in the same light as a

machine, or instrument of trade, which facilitates and abridges labor, and which, though it costs a certain expense, repays that expense with a profit."

In this passage, therefore, it is perfectly plain that Adam Smith includes intellectual or mental wealth, in the capital of the country, although such is not generally supposed to be his doctrine. Mr. McCulloch has well pointed out the inconsistency of this passage with his chapter on productive and unproductive labor, where he excludes all labor not employed in producing some vendible commodity from the title of productive.

46. J.B. Say has usually had the reputation of being the first great Economist who included intellectual wealth as part of the national capital, though, as we have seen, others preceded him. We have also shewn his astonishing self-contradiction. In one treatise he totally excludes mental wealth from national capital; in another he expressly includes it.

47. Ricardo, however, altogether excludes anything but material products from Political Economy. And in this he has been followed by James Mill, and Malthus.

48. Mr. Senior, as we have seen above, entirely adopts the view that immaterial wealth is capital. And Bastiat maintains the doctrine in its widest generality, that anything that can be exchanged is an economical element, and that any economical element may be capital (*BASTIAT*).

49. We have said enough to shew the remarkable differences of opinion that prevail among Economists on the subject. We have now to endeavour to discover whether we can have the guide of analogy from the physical sciences to enable us to decide among such a mass of conflicting opinion.

50. Now when we consider that Political Economy is the science of exchanges, or at least that according to all views, exchanges are one of the most important parts of it, it would certainly appear that there can be no rational ground for excluding anything which is the subject of exchange. It is undeniable that immaterial services form an immense proportion of the exchanges made. How then can they be excluded from the science? When we consider that in Mechanics there are incorporeal forces which can neither be seen nor handled, but yet may be *measured*, that in Chemistry there are also invisible elements which may be *measured*, we should conclude from analogy that in Political Economy there are elements which can neither be seen, nor handled, but which may be *measured and exchanged*.

When we consider that in Mechanics, which is the science of forces, from the very generality of the definition, a force may be either corporeal or incorporeal; that in Chemistry, which is the science of combinations, from the very generality of the definition, whatever will combine, is a chemical element, whether corporeal or incorporeal; it follows by the strictest analogy, from the generality of the definition, that in Political Economy, which is the science of exchanges, whatever can be exchanged is an economical element, whatever its nature be.

Nay, not only from the analogy of these sciences should we argue that incorporeal elements ought to be admitted, but if we are to have a science of Political Economy of the same generality as the

others, we should *a priori* expect that there would be incorporeal elements in it.

Such, we think, would be the obvious consideration which would strike any one who reflected on the analogy presented by the other sciences, and we must therefore examine what reasons these authors have alleged, who have opposed the admission of incorporeal elements into Political Economy.

51. Now, with respect to most of the authors above cited, we observe that they do not allege any reason at all for their opinions. They merely announce them. The first, we believe, who argued against their admission was Malthus; and, though somewhat long, we shall lay his reasons before our readers, and examine into their validity. Malthus begins his work by dwelling on the importance of the word *Wealth*, and its definition, and he very justly says, that it is a mistake to suppose that a writer is at liberty to define his terms as he pleases. He points out that the comparative merits of the system of the Economists, or Physiocrats, and that of Adam Smith, depend upon their different definitions of wealth, and of productive labor. Some writers have given too narrow a definition of wealth, others have extended it too far. Thus he says, p. 23,—

“Among the definitions which have extended the meaning of the term *Wealth* too far; Lord Lauderdale's may be taken as an example. He defines wealth to be ‘All that man desires as useful and delightful to him.’

“This definition obviously includes everything, whether material or intellectual, whether tangible or otherwise, which contributes to the advantage or pleasure of mankind, and of course includes the benefits and qualifications derived from religion, from morals, from political and civil liberty, from oratory, from instructive and agreeable conversation, from music, dancing, acting, and all personal qualities and services. It is certain, however, that an inquiry into the nature and causes of all these kinds of wealth would not only extend beyond the bounds of any single science, but would occasion so great a change in the use of common terms, as to introduce the utmost confusion into the language of Political Economists. It would be impossible to form any judgment of the state of a country from the use of the terms rich, or richer. A nation might be said to be increasing in wealth, when to all common eyes, and in all common language, it might be growing poorer. This would be the case, according to the definition, if a diminution of the manufacturing and mercantile products had been balanced in the opinions of some persons by the gratifications derived from the intellectual attainments, and the various personal qualities and services of the inhabitants. But how is this balance to be ascertained? How is it possible to estimate the degree of wealth derived from these sources? Yet it is quite obvious that we cannot practically apply any discussions respecting the relative increase in the wealth of different nations, without having some means, however rough, of estimating the amount of such increase.

“Some modern writers, who do not choose to adopt the language of Adam Smith, and yet see the confusion which would arise from including under the head of wealth every kind of benefit or qualification of which man is susceptible, have

confined the definition to those objects alone, whether material or immaterial, which have value in exchange.

“This definition is certainly preferable to the more comprehensive one just noticed, but by no means to the extent which might at first be supposed. When it is considered attentively, it will be found to be open to a very great portion of the objections to which the more general one is liable, and to draw the line of demarcation between what ought, and what ought not, to be considered as wealth, in the most indistinct and unsatisfactory manner.

“Passing over the incorrectness of introducing a term open to so much controversy as value into a definition of wealth, it may be observed—

“1st. That if by an object which has value in exchange, be understood its susceptibility of being purchased or hired, then there is scarcely any quality or accomplishment, of the mind or body, that would not come under the category of wealth. The possessor of the lowest species of literary knowledge, that of reading and writing, may be hired to teach others; and as all, or nearly all, who had acquired these useful arts are susceptible of such employment, an estimate of national wealth ought to include the value of these attainments, however various in degree and widely extended.

“2ndly. All the knowledge acquired by a superior education, and superior talents, on account of similar susceptibility, would have a greater claim to be included in the estimate. The possessors of religious and moral knowledge, though obtained without any view to the instruction of others for a pecuniary remuneration, would be ready to sell such instruction under a reverse of fortune. The same may be said of a knowledge of classical literature, mathematics, history, natural philosophy, chemistry, geology, mineralogy, botany, &c. &c. On the same principle, those who had learnt to dance, to sing, or to fence for their amusement, might, more or less, imperfectly teach dancing, singing, or fencing, for money.

“In short, if we include under the denomination of wealth, all the qualities of the mind and body, hired, we shall find that by the restriction of the term *wealth* to that which has exchangeable value, we have advanced but little towards removing the confusion and uncertainty attendant upon the former definition; and all idea of estimating the increase of wealth in any country, or making any moderate approaches to it, must be absolutely hopeless.

“On the other hand if we confine the definition of wealth to those objects which either have been exchanged, or are specifically intended to be exchanged, we shall attempt to draw a broad line of demarcation between things which in regard to their qualities are precisely similar; and further exclude from the category of wealth a great mass of articles which have been included, and most correctly so, by Adam Smith, and by almost every person who makes use of the term, either in writing or conversation.

“The various information acquired by private study, and destined for private use and enjoyment, may be exactly of the same kind as that which is intended to be let out, if anybody will hire it; yet the first in this classification is not to be called wealth, and the other is. The person who

buys instruction, buys an amount of wealth, which it must be presumed is equal in value to what he has paid for it, while the self taught person, who is in possession of much superior knowledge, has acquired no wealth. According to this definition wealth cannot be given; it can only be taught. The instructions of the schoolmaster are wealth; the same instructions given by a friend or father are not wealth. This is sufficiently inconsistent; but this is not all. By this definition of wealth, a very large and most important portion of material commodities is excluded from the denomination. In the business of agriculture a considerable share of the produce is always destined to be consumed on the spot without being exchanged. * * * Now this large mass of material commodities increased as it would be by the flax and wool raised, spun, and wove for home consumption, few it is conceived would venture to exclude from the denomination of wealth; and yet this produce has neither actually been exchanged for money or other goods, nor has it been raised with the intention of being so exchanged, and therefore, according to the last definition, it ought not to be considered as wealth.

"It must be allowed nevertheless, that it has exchangeable value; and here one of the great characteristic differences between material objects, and objects which are not material, appears in a striking point of view. Of the quantity and quality of the material commodities here noticed it would not be difficult to make an inventory. Many household books indeed furnish one; and knowing pretty nearly the quantity and quality of such articles, a fair approximation to their value might be attained by estimating them according to the market price of the district at the time. But in regard to immaterial objects, the difficulty seems to be insurmountable. Where is an inventory to be found, or how is one to be made of the quantity and quality of that large mass of knowledge, and talents, reserved for the use and consumption of the individual possessors, and their friends. Or supposing it were possible to form such an inventory how could we make any moderate approaches towards a valuation of the articles it contained.

"Consequently if by objects which have value in exchange we mean objects which are susceptible of being exchanged, we shall include such a mass of the mental and physical qualities of mankind, as to make the term wealth convey no tolerably distinct and useful meaning.

"And if by objects which have value in exchange, we mean only those objects which have actually been, or are specifically intended to be exchanged, we shall exclude from the denomination of wealth a large mass of material commodities which have always, and most justly, been classed under that head.

"To get rid of these obvious embarrassments, it has sometimes been the practice to consider the labor which is hired, as the wealth which is purchased without reference to its results. But it seems very strange and incorrect to consider mere labor as wealth. No one would give anything for it if he were sure that it would yield no gratifying result. It is in the expectation of this result alone that labor is employed. The sick man employs a physician, not because he is pleased with the trouble which he gives him, but because

he expects that his health may be benefitted by the advice which he receives. The lawyer is consulted and fees, only because his client expects to derive some advantage from the opinion to be given, or the cause to be pleaded. And even the menial servant is not hired on account of the desire to see a man work, but on account of the trouble, which he will save his master in performing certain offices for him, or the gratification afforded to his vanity by the show of having a person at his command.

"The natural consequences of these difficulties is, that the ablest writers who have deserted matter, in their definition of wealth, have fallen almost inevitably into contradictions and inconsistencies."

Malthus then goes on to shew most satisfactorily the astounding contradictions into which J. B. Say has fallen in his various works, and he says,—

"The fact really is, that if we once desert matter in the definition of wealth, there is no subsequent line of demarcation, which has any tolerable degree of distinctness, or can be maintained with any tolerable consistence, till we have included such a mass of immaterial objects as utterly to confuse the meaning of the term, and render it impossible to speak with any approach towards precision, either of the wealth of different individuals, or different nations."

52. We may also take what M. Baudrillart says, as he shares the objections of Malthus. At p. 53 (*Manuel d'Economie Politique*), after stating that some writers maintain that all sorts of work ought to rank equally in political economy, and that the work of the statesman, the jurist, the painter, the priest, and the professor, should rank equally with that of the agriculturist, the manufacturer, or the merchant; asks if they have succeeded in proving their case, and, in his opinion, says that they have not. He considers the case of the surgeon and doctor, and says that though they may contribute to heal a man who may produce wealth, still their services are not wealth in themselves. He continues, "*Les travaux du savant, du lettré, du professeur, du prêtre, de l'artiste, dans le cas plus ou moins fréquent où ils vont à leur but, qui est l'amélioration et développement de la nature humaine, sont donc productifs d'utilité, sans d'être de richesse. Ils ont une valeur, sans doute, c'est à dire qu'on les paye; mais cela signifie seulement qu'en échange de certains avantages intellectuels qu'on en espère, on sacrifie une partie des produits matériels que l'on possède, ou que l'on peut acheter. Avant à celui qui vend sa peine en vue de ces résultats, il ne crée pas de la richesse, il en consomme, sans qu'on puisse dire pour cela qu'il est plus oisif ou plus inutile que celui qui forge du fer ou qui fabrique de la toile; il peut même se livrer à un travail beau coup plus considérable et rendre des services encore supérieurs, quand même, ni directement ni indirectement, aucune création de richesse ne devait s'ensuivre. Il y a donc une distinction entre les travaux qui ont pour but d'être utiles ou agréables aux hommes, à un titre quelconque, et ceux qui ont pour objet d'enrichir les membres de la société.*"

"*Ses produits immatériels et les produits matériels présentent d'ailleurs des différences graves qui nous semblent devoir faire exclure les pre-*

miers du domaine de l'Economie Politique, tout en tenant le plus grand compte de l'effet indirect que les travaux qui y donnent lieu peuvent avoir sur le développement de la richesse ; car limiter une science ce n'est aucunement, nous ne saurions trop y insister, briser ses rapports naturels et indispensables avec les domaines qui l'avoisinent, pas plus que la division de l'humanité en divers corps de nations n'exclut entre celles-ci de perpétuelles relations de commerce et la réciprocité des bons offices.

"L'une de ces différences porte sur l'impossibilité absolue d'arriver à aucune *évaluation* précise de ces biens dits immatériels. Sans doute on a soutenu avec raison qu'il n'y a aucun moyen de parvenir à évaluer exactement le capital matériel d'une nation. Mais on peut le faire plus ou moins approximativement. L'idée seule au contraire de faire l'inventaire, un inventaire quelconque, si restreint qu'on le suppose, de l'instruction, de la beauté, de l'agilité, du goût, de la justice, de la bienveillance, et autres qualités naturelles ou acquises, a quelque chose de bizarre et de tout à fait choquant ; elle répugne au sens commun."

M. Baudrillard, after quoting Malthus, says :—

"Une autre différence, qui tient de près à la précédente porte sur la faculté d'être échangés. Nous ne nions pas à coup sûr ce fait qui frappe tout le monde, que les avocats, les médecins, les acteurs, les chanteurs, &c., rendent des services utiles ou agréables, qui s'échangent contre des produits, ou ce qui revient au même, contre un certain produit, c'est à-dire la monnaie, par l'intermédiaire de laquelle on obtient tout le reste. Le taux suivant lequel se règle le prix de ces services, leur salaire appréciable en monnaie, est essentiellement du ressort de l'économie politique, quand même ces travaux ne feraient qu'absorber et détruire de la richesse. Mais il importe de remarquer que cette circonstance ne fait pas que les produits, qu'on appelle immatériels, soient en eux-mêmes pourvus de la faculté d'être échangés. Nos qualités et nos vertus nous sont inhérentes. Dans certains cas, nous pouvons bien mettre un prix à la peine que nous prenons pour y faire participer les autres. En elles-mêmes, elles sont invendables, inaliénables, intransmissibles. Celui qui s'efforce, moyennant salaire, de faire naître chez les autres certaines modifications heureuses ne se dessaisit pas pour cela de sa science, de son goût, de ses vertus, comme celui qui échange une pièce d'étoffe s'en dessaisit pour obtenir une pièce de monnaie.

"C'est par abus de mots, ce nous semble, que l'on donne à tout travail utile le nom d'industrie, de même que c'est par abus que l'on applique le mot de richesse à tout service et à tout résultat utile."

53. We thus place before our readers what these able writers have said, in order that they may give what weight they please to their arguments. We shall not in this place take notice of all the arguments alleged against the admission of immaterial products into Political Economy, because it will be more convenient to reserve some for further discussion. But we shall only notice here one of the principal arguments alleged, that it is not possible to make a valuation, or inventory, of such products.

It appears to us that this argument is both

unfounded, and, even if it were well founded, it is incorrect.

In the first place, it is unfounded, because, if it were necessary to make a valuation of the immaterial products of a nation, it is not more difficult than to make a valuation of material capital. Take the incomes of all the persons who deal in immaterial products, capitalize them, and there is the value of the totality.

But, furthermore, the argument appears to us to shew a misapprehension of the nature of Political Economy. That science never yet attempted to make a valuation of all the Economical Elements in any country whatever. Is it necessary for Political Economy to take an inventory of all the pots and pans in a gentleman's kitchen, or his furniture, or the coats, waistcoats, &c., &c., in his wardrobe? It might possibly be done as a curious statistical table, and a very curious inventory it would be. But it would not be Political Economy. But if it is wholly useless to make an inventory of the things, it would be absolutely impossible to put a valuation on them, for it is manifestly utterly uncertain, and it would clearly depend on numerous circumstances, which it would be absolutely impossible to foresee.

To suppose that it is necessary for Political Economy to make an inventory of all economical elements, is as baseless as to suppose that it is necessary in mechanics to make an estimate of all the mechanical forces in the world ; or that it would be necessary to the science of medicine to make a catalogue of all the medical cases in the world ; or to the science of chemistry, to ascertain the total quantity of chemical elements in the world. Each of these may, perhaps, have its uses, but they are in no way necessary to mechanics, medicine, or chemistry. The business of mechanics is to deal with particular cases of forces ; of medicine, to deal with particular cases of fever, cholera, &c. ; of chemistry, to deal with particular cases of combinations : and so it is the business of Political Economy to deal with particular cases of exchange.

54. Mr. Cazenove, who restricts the term Wealth to material objects, thereby agreeing with Malthus, says (*Thoughts on a few subjects of Political Economy. Append: p. 71.*) "M. Say was, I believe, the first writer who ventured upon this innovation of the ordinary meaning of the term *Wealth*. But in his discussion on the subject of over-production, he avowedly discards the consideration of *immaterial* wealth, and confines himself exclusively to that which is *material*."

"Other authors, who have begun their treatises with giving the same extension to the term, have afterwards been obliged, in like manner, to restrict it to its ordinary meaning. Their reasonings would be for the most part false or unintelligible, unless they were understood as referring exclusively to *material* productions." And he commends Mr. Mill, who adopts that restriction.

We have shewn that Mr. Cazenove is in error in supposing that J. B. Say was the first to introduce immaterial products into Political Economy, although he has, certainly, usually the credit of doing so. Besides Socrates and Beccaria, we have shewn above that Adam Smith himself, in a passage that has been most strangely overlooked, enumerates intellectual abilities and

talents among the fixed capital of the country. We have ourselves shewn the extraordinary inconsistencies into which Adam Smith and J. B. Say have fallen. But what do these inconsistencies prove? Only this, that those writers who have fallen into them have never seized the fundamental conceptions of the science with that tenacity of grasp, and clearness of vision, so as to enable them to erect a durable science.

55. But we have no such flickering faith in our own convictions. On the contrary, we have the firmest belief in their truth, and we are fully prepared to follow them out to the remotest consequences which can be logically deduced from them. This is preeminently a case in which the prescient sagacity of Bacon is vindicated, when he earnestly warns us to look constantly to Natural Philosophy for our reasoning, and to refer questions in other sciences to that as the mother of them all. We believe the conceptions we adopt to be framed in the strictest analogy to the conceptions of Physical Science, and not only that they are true, but that they are the only true ones. Who that is familiar with the conception of incorporeal forces in mechanics, or of gaseous elements in chemistry, could hesitate for a moment in recognizing incorporeal elements in Political Economy? or rather, who that is familiar with these sciences would think for a moment of rejecting them? We have already endeavoured to shew that some of the arguments adduced for rejecting them are unfounded. At all events whatever inconvenience Economists may find in admitting them, is common to them with Physicists. But the fact is the study of Physical Science governs and rectifies men's thoughts, and gives precision and generality to their language, and men are compelled to expand their ideas to bring them into conformity with nature. And after several generations, physicists have brought their language into a wonderful state of refinement. And by this means, not only the study of nature, but language itself has become a mighty instrument of thought and discovery. The language of Science itself has become a very potent instrument to unlock the secrets of nature. And if Economists would only bestow the same care in polishing and purifying the language of Political Economy, it will be found—and not till then—that language itself is a potent instrument of discovery in Political Economy. By no other course whatever can Political Economy ever be raised to the rank of an exact science. It is only by polishing the language that we can ever attain those bold generalizations which are the essence of science. And those who wish to advance the science must especially aim at these generalizations. Science is not advanced by cautious timidity, but by cautious daring. And these generalizations must be subjected to the most rigorous tests of Inductive Logic. There is no one who is familiar with the conceptions in Physical Science, who cannot see in what a very crude state the conceptions of Political Economy still are. We scarcely know of one which has ever yet been tested by the laws of Inductive Logic. So little has this been done that we believe we are actually the first to apply one of the most powerful weapons of Inductive Logic—the LAW OF CONTINUITY—to the conceptions and axioms of Political Economy. (CONTINUITY, LAW OF.)

56. Now we adopt the principle that whatever can be exchanged, and therefore, whatever has value that may be measured, is an Economical Element, or an Economic Entity, in its widest generality, and we accept all the consequences of this doctrine. Whatever may be bought and sold is in our view an economical element, and under the dominion of Political Economy. And we rejoice to say that we have the approval of one of the highest living authorities for doing so. M. Michel Chevalier writes to us, "Vous définissez l'Economie Politique par ceci, qu'elle étend son domaine sur tout ce que se vend et s'achète. Dans mes cours au Collège de France, que j'ai cessé de faire depuis 1852 (tout en restant titulaire de la chaire), j'ai souvent exprimé la même idée, et j'ai eu occasion d'y revenir dans nos discussions de la Société d'Economie Politique de Paris, discussions mensuelles qui sont reproduites en abrégé dans le *Journal d'Economie Politique*. Je vous en fais l'observation non pas de tout pour vous disputer la priorité—une idée appartient à celui qui en fait tirer le bon parti, et vous avez fait un excellent usage de celle-là—mais bien pour me féliciter avec vous d'une coïncidence qui me flatte."

57. For these reasons it appears to us that all the arguments which have been urged against the admission of incorporeal elements into Political Economy entirely fail, and that, on the contrary, it is utterly in the teeth of all scientific analogy to reject them. Every one now is agreed that Political Economy treats about *wealth*. It may be called the Theory of Property; and how is it possible to frame a general definition of property, until we have surveyed all the different kinds of property? Now, we shall show a little further on, that those writers who have restricted wealth to material things have omitted an immense mass of property, which is recognised by the law, and treated in all respects in the same way as material property.

58. We are persuaded that the difficulty on this point has arisen from the fundamental misconception as to the nature of Value. For if we consider Value to be some quality inherent in a thing itself, most persons imagine that there must be some corporeal substance in which that quality must be embodied, and that it cannot be measured, except by something corporeal. But it would be just as erroneous to say in Mechanics that an incorporeal force cannot be measured, or that an invisible element in Chemistry cannot be measured.

59. And this, as every one knows who has studied the history of Science, was the very objection that was raised against the admission of gravity as a mechanical force. Its opponents could not imagine any mechanical force except such as was embodied in some material substance, such as a rope, or a bar. The very same difficulty was felt about the air; it was long before men were able to familiarise their minds with the idea that the air had weight. But every tyro now knows that gravity is a mechanical force which may be measured, and that a corporeal force may balance an incorporeal one. Thus a rope which supports a weight balances gravity. So in Political Economy, a service, an incorporeal element, may balance, or be equivalent to a product, which is a corporeal one. For so many

hours' work I may give a man so much food and clothes. And each of these is an Economic Element—the work, and the food and clothes. This we have seen above Beccaria notices.

60. We, then, in accordance with the immense majority of Economists, in strict accordance with the use of the word in the language from which it sprung, define *Capital to be an Economic Element used for the purposes of profit*. There is, in our opinion, a broad, fundamental, and natural distinction between things used and enjoyed, and things which are appropriated to the purposes of increase. This distinction is most clearly pointed out by Aristotle, the founder of Political Economy (ARISTOTLE), and has been adopted by nearly every Economist of name since. And in our opinion it is founded in nature.

61. And it appears to us, that any Economic Element whatever, that is used for, or conduces to, the purposes of profit, is Capital—no matter whether it increases itself. Because the increase of everything is measured in money, and not necessarily in the thing itself. Thus to the farmer, his increase consists in the increase of corn, and of cattle. But to the proper increase of these, tools, instruments, and buildings are necessary. Now, the farmer's profit does not arise from the increase of ploughs, harrows, spades, and houses, but from the increased value of his crops and cattle. The value of these instruments is replaced in the increased value of the produce. Whatever, therefore, is necessary to that end, appears to us to be Capital.

62. We say this, because we think that a distinction has obtained among a number of Economists which is not founded in nature. They restrict the term Capital to things which are the produce of human industry, and draw a distinction between them and natural agents. Now, we cannot assent to this distinction. We have endeavoured to shew that the limitation of the "produce of human labor" must be eliminated from the definition of Capital. Now, by a very considerable number of Economists, land has been carefully excluded from the definition of Capital. But Economists who do that, include the buildings of manufactories, and cattle, under the term Capital. Because they consider them to be the result of human labor. But this distinction appears to us to be unfounded. A manufactory is an instrument necessary to produce cloth; it is built of materials furnished by Nature, and modified by man. But the land itself is that instrument which is necessary for the peculiar species of the product, corn. And as for cattle, we think it a positive abuse of language to say that they owe their existence, in any way whatever, to human labor. The land is that instrument which is peculiarly appropriated to the production of corn and cattle, just as the manufactory is the instrument peculiarly appropriated to the production of cloth. And the value laid out upon both is replaced in the value of the produce. Moreover, it would be greatly more correct to say, that the present state of the land in all civilized countries is the result of human labor, than it is to say that either corn or cattle are the result of human labor.

63. The fact is that these views arise from the fatal introduction of the notion that labor is the essence, or a necessary element, of Value. This

notion must be entirely expelled from Political Economy, before it can make any progress.

64. Capital, then, in our view, is any Economic Element whatever appropriated to the purposes of increase, either directly or indirectly. It increases directly when the thing itself is capable of being used. It increases indirectly when it is employed in the production of the thing used. And the profit and the value of the indirect capital is found and replaced in the value of the direct capital.

65. As therefore the value of all the instruments and materials is comprehended in the value of the finished product, the last is all that we need consider in a scientific point of view, and we may say that, in Political Economy, Capital is an increasing, or a CONTINUOUS QUANTITY.

66. But we must especially remark this. It is particularly to be observed that Mr. Mill says above the distinction between Capital, and non-capital, resides in the intention, or the mind, of its owner. So we must observe that in all the subdivisions of capital, we must preserve the same analogy. Capital, as we shall find hereafter, is divided into distinct species, and as the fundamental notion of Capital depends upon intention, and method of use, and not upon the nature of the thing; so all the different species into which capital is divided must, by a similar analogy, depend upon intention, and method of use, and not upon the nature of the thing. We shall find this to be of great use hereafter.

67. These remarks apply to what we are now considering. We have said that the value of the finished product, which may be called direct capital, comprehends the value of all the instruments and materials, which may be called indirect capital. Now we must observe that what is a finished product to one person, is merely an instrument or a material to another. Thus to the iron master, a bar of pig iron is a finished product, but to an engineer or cutler it is only a material, or an instrument. Thus ploughs and harrows are finished products to the agricultural instrument maker, but they are only an instrument to the farmer. The corn is direct capital to the farmer, but only indirect capital, or a material, to the miller. Flour is direct capital to the miller, but only indirect to the baker. And bread, the finished, or ultimate, product comprehends the value of all the preceding operations.

68. We may say, then, in a general way, that Capital is a CONTINUOUS QUANTITY. And any one familiar with physical science, will at once see the immense consequences of this doctrine, or conception. It immediately brings Political Economy within the pale of mathematical and Natural Philosophy.

69. When we say that Capital is a continuous quantity, it is quite evident that it *extends from the past into the future*; and this opens up consequences of immense magnitude, suggested by the analogy of Natural Philosophy.

In Natural Philosophy, if time *past* is POSITIVE, time *future* is NEGATIVE.

70. As this, perhaps, may place the matter in somewhat a new light to some of our readers, we must dwell a little on it, and explain the difference between positive and negative, in Arithmetic, and Algebra and Natural Philosophy.

In Arithmetic, the positive and negative signs

merely mean addition and subtraction. There are no such things in Arithmetic as absolute negative quantities. Thus 0, in Arithmetic, is a positive limit which quantities cannot pass.

But in Algebra and Natural Philosophy, the case is wholly different. The terms positive and negative denote any opposites whatever, and 0, or zero, is merely the boundary, or limit, between positive and negative.

Thus, in Algebra and Natural Philosophy, negative quantities have as real an existence as positive ones.

Thus, if a force pulling one way is positive, a force pulling in the opposite direction is negative.

If a person walking one way were positive, then if he walk in the opposite direction it is negative.

71. But we need not go to any abstruse subjects for examples. It is well illustrated by a common globe.

In any globe, or map, the Equator is marked 0, which is merely the boundary between north and south. And if we call either of these, say the north, positive, the other, the south, will be negative.

So in longitude, the meridian passing through the national observatory is 0, and east and west may be positive and negative.

72. Let us illustrate this by an example. If we called north, positive, and south, negative, then of course a ship placed in north latitude would be in positive latitude, and a ship placed in south latitude, would be in negative latitude. And if the ship sails in a northerly direction, she would sail in a positive direction, and if southerly, in a negative one.

Thus if a ship were actually in 20° north latitude, we should say her position was $(+20)$, and if she sailed 10° further north, she would then be $(+30)$. If she sailed, instead, 10° south, her position would be $(+20-10)$, or $(+10)$.

But if she sailed 30° south, her position would then be $(+20-30)$, or (-10) , that is in 10° south latitude, or 10° beyond 0, or the equator.

If then being (-10) she sails 20° further south she would then be $(-10-20)$ or (-30) .

And similarly with reference to east and west.

And we observe this, that though part of the course of a ship is in the positive hemisphere and part in the negative one, the part in the negative hemisphere is not to be *subtracted from*, but to be *added to* the part in the positive hemisphere. So that her whole course sailed consists of one part in the positive hemisphere, together with a part in the negative one.

73. So in a Thermometer; if 0, or zero, be the freezing point, the degrees above freezing will be positive, and those below freezing will be negative, and if the mercury be rising, it is proceeding in a positive direction, and if falling, in a negative one.

Thus, also, we observe, that if the mercury falls from $+20^{\circ}$ to -10° , or rises from -10° to $+20^{\circ}$, the whole space passed over is 30° , and the negative part is to be *added to*, and not *subtracted from* the positive part.

74. Thus universally, in Natural Philosophy, 0 is the boundary between any two opposites. And this idea is applied to TIME. If time past is positive, time future is negative, and the pre-

sent time, which is the boundary between the past and the future, is 0, or zero.

75. There is a law in Natural Philosophy which is obvious from the preceding considerations. It is this, *That any quantity passing through 0, or zero, changes its sign.*

From the above statement of positive and negative, this law is self-evident. For as 0 is the limit between positive and negative, any quantity that passes from one to the other must necessarily change its sign.

And from the samples in §§ 72, 73, it is evident that in Algebra and Natural Philosophy, when a quantity passes through 0 and changes its sign, in order to find the total value, the part of its course which is negative is not to be *SUBTRACTED FROM*, but *ADDED* to the part which is positive.

Now, applying the preceding remarks to capital, the subject in hand, they suggest a law which will be obvious to any one familiar with Natural Philosophy. It is this—*Capital is a continuous quantity which, passing through 0 (the present) into futurity, CHANGES ITS SIGN.*

76. That is to say, having defined capital to be a continuous quantity, or a quantity continually producing a profit, the profits which it has already produced are positive, and those which it is to produce are future, or negative.

But though those future profits are yet to be produced they have a present value, and the right to receive them is a present valuable and saleable commodity, and is an Economic Entity.

And by the considerations just stated, it is manifest that to find the total value of capital we have to *ADD* together the value of the past profits and the value of the future profits, the value of the past being positive, and the value of the future negative.

77. But though capital is a continuous quantity, it may be limited to a certain term. And this term may extend to infinity. Because the capital itself may last for ever, or it may be worn out in a certain time. And, of course, capital of different sorts may wear out in longer or shorter periods.

Now as it produces a continuous profit, it may be supposed to do so at certain definite intervals. And the value of all capital is the present value of the sum of the profits at all these definite intervals.

78. Thus, to take a simple example. When a man buys a landed estate, he does not merely pay for the value of the present produce on the land, but he pays a sum equal to the present value of all the supposed future profits for ever.

And these profits lie wholly in the future, and are therefore negative, according to the preceding considerations.

So the value of railway stock, bank and other shares, is always calculated on this principle.

Now, it is not usual to express these transactions at full length, but it is evident that that is the real nature of the operation.

79. But not only the land, stock, shares, &c., have a power of productivity which is saleable, but also a merchant's skill, judgment, industry, and character are also capital, as Adam Smith, and all leading Economists, have allowed; and he may sell the right to the future profits of his trading, just as much as the future profits of the land may be sold. When this is done, the nega-

tive sign always appears, as it is done by means of Bills of Exchange, and other instruments of credit. These are always affected with the negative sign; and the universal error of Economists is, that they suppose they are to be *subtracted* from a merchant's present property.

This, however, is a profound delusion. They are only engagements to pay at a future time, and thus credit is analogous to the future products of the land, future dividends, &c.

That is to say, the RIGHT, or PRIVILEGE, of receiving these future dividends and profits is real existing property, which may be bought and sold, which is future, or NEGATIVE.

80. Having premised this, we shall now investigate more closely the different species of Capital, upon the principles of the system of Political Economy which we adopt.

We have said (PRELIMINARY DISCOURSE; VALUE) that there is a broad and fundamental distinction between Economists on the source and origin of Value. The two schools of Political Economy, founded by Turgot and Quesnay, and Adam Smith, agree in this, that they consider Value to be some quality, or attribute, fixed in something. There are, no doubt, differences of opinion among them about the matter, but their common principle is, that Value is to be found in the object. Now, the insurmountable objection to this is, that if Value consists in anything inherent in the object itself, its value cannot change, while that attribute remains the same. Thus Ricardo, who makes labor the source of Value, consistently with his system, says, that the same labor of men will always produce the same value, and that that commodity would be invariable in value which was always produced by the same quantity of labor. But very little reflection will shew that this is inaccurate, for the value of things produced by exactly the same quantity of labor may be very different.

81. Now, according to the views of these Economists, in considering the value of land we should look to something in the land itself for its value, either the cost laid out in bringing it to its present state, or its fertility, or something of that sort. But is this correct? Not to mention that the value of landed property greatly depends upon the average rate of interest, being three times as great when the usual rate of interest is 3 per cent. to what it is when the rate is 9 per cent., we may ask this question—Suppose that the people of England were, like the Phœceans and Teians of old, to emigrate in a body, where would the value of the land be? Where would the value of all the houses, &c. in England be? Now, these would remain just as they were, and yet their value would manifestly vanish. It is, therefore, perfectly manifest the value of the land must be sought for elsewhere than in the land itself.

82. Where, then, is the source of the value of the land in England, if it does not reside in itself? We must go back to the idea of Aristotle. The founder of Political Economy declared that the WANTS or DESIRES of mankind are the source of Value, and the quantity of money (or anything) they would give to obtain possession of what they wanted is the *measure* of Value. And that we believe to be the true fundamental conception of Political Economy. The source of the value of the land of England lies in the wants of the people

to be fed and clothed, and their readiness to give something in exchange for its products. It is this desire that gives value to the land, to corn, to cattle, and to all the products of the land.

These wants are permanent, and consequently so long as they exist the value of the land will be permanent. If it were possible to imagine that men would cease to require food and clothing, or should they change their tastes, and require such food and clothing as could not be produced in England, then the value of the land would immediately die off.

83. This, therefore, is the general idea of the value of land. It is the source from which an annual revenue springs, because it supplies something that is wanted by men. And men invest their money and labour in cultivating the land, and rearing cattle, because they expect that they will continue to have a permanent value. And the value of an estate in land is found by finding the present value of all the annual revenue for ever according to certain rules.

84. But this conception may be generalised. And we may affirm that if men require any service whatever continuously, and will pay to obtain it, the annual revenue, or the sum paid annually to obtain these services, may be capitalised, and form a great estate.

85. Thus the continued desire of men for the services of lawyers, and the certainty that they will continue to pay for them, creates a great incorporeal estate—the LAW; and this causes men to invest their money and labour in the acquisition of law.

86. The certainty that men will continue to require and pay for the services of medical men, creates a great incorporeal estate—MEDICINE; and this causes men to invest their money and labour in acquiring a knowledge of physic.

So men require and have endowed a great incorporeal estate, the CHURCH.

87. And as new wants spring up, and men will pay for their satisfaction, new incorporeal estates spring into existence. Thus, in comparatively recent years, the demand for canals and railroads has called into existence a new incorporeal estate—ENGINEERING.

88. So the necessity men have to be defended from their enemies by sea and land, and their willingness to pay for such defence, creates two great incorporeal estates, the Military and Naval Services.

89. In rude times men had few wants but corporeal ones, and consequently there was little besides material property. But in process of time new desires were created, mental wants were excited, and men became willing to pay for products to gratify their minds. They became willing to pay for books, and this created and gave value to a great incorporeal estate—LITERATURE.

90. A desire for Art, too, sprung up, and this created great estates in ART, either embodied in a material form, such as pictures and statues, or in an incorporeal form, such as music, and dancing, and acting, and so on down to its lowest forms.

And so through the whole catalogue of trades and professions. It is the demand of the public which confers value on them.

91. Now each of these, the land, cattle, &c.,

the law, the church, medicine, engineering, the army, the navy, literature, the arts, and all trades of all sorts, are each of them a great estate, all deriving their value from one great common principle—the wants of mankind, and their willingness to pay for their products. As it is this desire and willingness which call them into existence, and confer value on them, so a cessation of this desire, and a cessation of the willingness to pay for their products, would immediately annihilate their existence.

If men ceased to care for art of all sorts, and literature, the whole literary and artistic estates would immediately cease to exist.

If men inaugurated the reign of universal peace, those great estates—the military and naval professions—would immediately cease to exist.

During the reign of George III., the fashion for bobwigs and steel shoe buckles suddenly ceased. Those trades were immediately dissolved, all that capital was suddenly dissipated, causing dire distress.

And the very same thing is true of all trades and manufactures of all sorts. It is the demand for their products which gives them their value, and constitutes them capital.

92. Hence every new want and every new desire of men calls into existence and creates new capital. Every change of fashion, every extinction of a want or desire, extinguishes capital.

93. And each of those great estates, the land and material products, the law, medicine, art and literature, scientific trading, and manufacturing knowledge, is transmissible and inheritable. No doubt they are transmitted in different ways, but still the general principle is true. Nor do we say that it is possible to produce transcendent genius at will. But yet, in each of the incorporeal estates, especially the professions, in trades, in manufactures, there are accumulated hoards of knowledge, which are augmented by each succeeding generation, and transmitted just as much as material products are, and are *WEALTH*, or *Economical Elements*, just as much as material products, and will continue to be so, so long as men continue to want and to pay for them.

And the money and labor men spend in acquiring this knowledge, and cultivating their skill in a useful profession, is, in all respects, *CAPITAL*, just as much as money and labor expended in tilling the ground, or invested in any material product, and we have shewn below is fully admitted by Adam Smith to be so, although the contrary is generally supposed.

94. And hence we arrive at this great fundamental law in Political Economy—

IT IS DEMAND, OR CONSUMPTION, AND NOT LABOR, THAT GIVES VALUE TO PRODUCTION.

It is Consumption alone which gives Value to Production, and adopting the definition of Mr. Senior in its widest generality, any source whatever, corporeal or incorporeal, which produces anything which is exchangeable, is *CAPITAL*.

And these considerations appear to us to shew conclusively the truth of the doctrine we have so often affirmed, that it is *not Labor which is the cause of Value*, but *Value which is the cause of Labor*.

95. It is, moreover, the entire overthrow of the Ricardian system of Political Economy. Ricardo considers the value of a thing to consist in the labor which it has cost. We should imagine that there is scarcely an Economist, at the present day, of any note, who will not agree that the *value of a thing is not what it has cost, but what it will sell for*.

96. We have now to examine the nature of a species of property which has given rise to more discussion almost than any other, namely, the *Funds*.

When Governments desire to execute some great work, which requires means beyond what they have, or find it necessary to borrow large sums of money in war, they promise to pay a sum annually, either for a limited time, or for ever. And this engagement to pay confers a value on the shares in the original loan, which may be made transferable, and the certificates so attesting this ownership are called the *Funds*.

97. Now the most diverse opinions have been entertained as to whether the funds, or this stock, are to be reckoned part of the *wealth* of the nation, or not. When they are called the “public debts,” many persons think that the intellects of a man must be somewhat crazed who can suppose that these *public debts* are part of the *public wealth*. And we shall see that some very able Economists maintain that the income of the fundholders must not be reckoned as part of the National Wealth.

98. Thus J. B. Say, *Cours d'économie politique*, Vol. I. p. 523, blames M. Dufresne de Saint Léon for considering the public funds as part of the general wealth of society, because, he says justly, that they are only a title granted to the creditor of the state to receive the future taxes, which augments, in no way, the sum of the capital and the revenue of the nation. And Mr. Mill says at p. 9, after mentioning a mortgage (the nature of which he has mistaken), “The position of fundholders, or owners of the public debt of a country, is similar. They are mortgagees on the general wealth of the country (in which Mr. Mill is in error.) The cancelling of the debt would be no destruction of wealth, but a transfer of it, a wrongful abstraction of wealth from certain members of the community, for the profit of the government, or of the taxpayers. Funded property therefore cannot be counted as part of the national wealth. This is not always borne in mind by the dealers in statistical calculations. For example, in estimates of the gross income of the country, founded on the proceeds of the income tax, incomes derived from the funds are not always excluded; although the tax payers are assessed on their whole nominal incomes, without being permitted to deduct from it the portion levied from them in taxation to form the income of the fundholder. In this calculation, therefore, one portion of the general income of the country is counted twice over, and the aggregate amount made to appear greater than it is by about 30 millions. A country, however, may include in its wealth, all stock held by its citizens in the funds of foreign countries, and other debts due to them from abroad. But even this is only wealth to them, by being a part ownership in wealth held by others. It forms no part of the collective wealth of the human race.”

99. This argument of Mr. Mill's requires

some investigation. He says that the income of the fundholder ought not to be reckoned separately from the general income of the country, because it is paid out of the general incomes of the taxpayers; and he says, that doing so makes the income of the country appear 30 millions greater than it really is.

Now if Mr. Mill's argument were true, it is perfectly clear that it ought to be extended not only to fundholders, but to all persons who receive their incomes out of the taxes which are paid out of the general income of the country. Thus the civil list of the crown ought to be excluded from the catalogue of national incomes. So ought the whole pay of the military and naval professions; so the whole of the administration of the civil service, from the prime minister down to the humblest policeman; so the incomes of the judges. If Mr. Mill's argument be true the incomes of all these persons must also be excluded from the general catalogue of national income, because it is perfectly clear that they all stand on exactly the same footing as the fundholder, they are all paid out of the taxes of the country. Is Mr. Mill prepared to adopt these consequences? If his argument be true, how can he escape from them?

But if Mr. Mill's argument be true it must be immensely extended. The income of railways is paid out of the general income of the country, just as much as that of fundholders. Only in one case the taxation is voluntary, and in the other compulsory. It is wrong to reckon the income of railroads separately. But the fact is, to make the matter short, a slight consideration will show that *the income of every trade, business, and undertaking whatever, in succession, is paid out of the general income of the country.*

100. We state the proposition in this form:—

Every man's income is paid out of the income of some one else.

The doctrine stated thus abruptly may startle some persons, and they may think it a paradox, nevertheless a very slight examination, with the assistance of some of the acknowledged fundamental truths of modern Political Economy, will very soon unravel the paradox.

We need scarcely remind our readers that the old doctrine was that in an exchange *neither* side gained. Aristotle and Cicero both maintain this, and Luther was driven into one of his customary fits of fury, by the bare idea that in an exchange either side could gain, except by robbing the other. (ARISTOTLE; CICERO; LUTHER). This doctrine, which had some show of plausibility in it, gave way to another which was palpably absurd. It was then maintained that, in commerce, only one side gained, and what one side gained, the other lost.

Then mankind, as usual, having tried every species of absurdity, were at last perforce driven to adopt the only remaining conclusion, *that in commerce both sides gain.* And this is now the acknowledged doctrine of modern Political Economy, (EXCHANGE; PROFIT), which we need not spend any further time in explaining here, as it is now universally admitted.

101. The proposition we have stated above, that *every man's income comes out of the income of some one else*, stands exactly on the same footing as the doctrine that in commerce both sides gain.

Now let us take a few examples.

We have said above that it is the wants of men alone which give value to the land. It is well known that men will continue to want food and clothing, and therefore owners of land devote their money and labour in producing corn and cattle. Now this is their capital. When this capital, in the form of corn, say, has produced its increase, the landlord offers it for sale to the public. The proceeds of the sale in ordinary times will exceed the cost of production. Now the portion of these proceeds which equals the cost of the investment replaces the capital, and all above that is profit or income. No doubt the landlord might, if he chose, spend the whole proceeds in personal enjoyment and then it would not be capital to him. But we suppose him to be a prudent man, and not disposed to diminish his capital. We may therefore consider, without error, all the excess of the proceeds above the cost of production, as profit or income, which he may spend upon his own enjoyment without diminishing his capital. Now, where does that income come from? Most clearly from the income of some one else.

102. A merchant, we will say, does business on a similar principle to the landlord. He invests a sum of money in business as capital, and that capital brings him in a profit, or income, which he may spend on personal enjoyment. With this income he buys corn and meat from the landlord. Hence the landlord's income is derived from the merchant's income.

Reverse the case. The landlord has made an income, and he wants things from the merchant for personal use. Therefore, out of his income he purchases things from the merchant, and hence the income of the merchant comes out of the income of the landlord.

103. It might, perhaps, be said by some, that though this is true, so far as it goes, yet it is not the whole truth. Because there are many traders who never deal with the public, or ultimate consumers, but only with intermediate consumers. Thus merchants deal with wholesale dealers, and these again with retail dealers. When the wholesale dealer purchases from the merchant, he purchases with capital, because he means to sell again. But the merchant of course must make a profit; and this comes, in this case, from the capital of the wholesale dealer, and not from income. So the profits or income of the wholesale dealer come from the capital of the retail dealer. And here again is income made from capital.

But this objection, which seems plausible at first, is soon dissipated, when we consider that the ultimate consumer replaces all these profits in the price he pays for the article. The price he pays for it manifestly replaces the capital and the profits of all the intermediate parties, and consequently the profits made by these intermediate parties is, in fact, only an advance of the profit which is to be recovered at a future time from the ultimate consumer.

104. Now, the very same mechanism is true of all other traders and dealers whatever. Their incomes always proceed from the incomes of the ultimate consumers of the articles they deal in.

This is obviously true of Railways. The income of railways evidently comes out of the incomes of other classes in the community, and

yet the income of railways is justly reckoned separately in the general income of the country.

It is also obviously true of all professional men. The incomes of lawyers and medical men manifestly come out of the incomes of their clients and patients. So the incomes of actors, and those of the musical profession, evidently come out of the incomes of those who frequent theatres and places of amusement. And the incomes of all these persons are justly reckoned separately in the general income of the country.

We will take a case even yet more clear and decisive. A noble lord has an income of £50,000 a year. He keeps a French cook at £300 a year, a Scotch gardener at £250 a year, besides a large retinue of domestics. Now, it is quite evident that the incomes of all his domestics and employés come directly out of my lord's income; and yet their income is reckoned separately in the income of the country, over and above and distinct from my lord's income. And my lord pays income-tax on his income, and each of his employés, whose income is above the limit, pays income-tax on his income. And justly so.

Thus we arrive at this general truth, after exhausting the whole catalogue of incomes in succession—that the income of every man is made up by driplets out of the incomes of other people, and every man's income (at least of those who spend it) goes to make up the income of all the persons he deals with, directly or indirectly.

These considerations satisfactorily prove, we think, that Mr. Mill's objection to the incomes of the fundholders being reckoned separately, as well as the incomes of the general public, is not well founded.

105. But we have still to investigate another question. Are the Funds separate property? Are we to conclude that they are part of the *wealth* of the nation? Now, to determine this we must not let dust be thrown in our eyes by names, but we must look to the nature of the thing.

Let us suppose that a country was subject to inundations of the sea, and that, to preserve the lives and property of its inhabitants, it should be absolutely necessary to erect vast sea-dykes. Now, as these sea-dykes would be for the general benefit, it is manifestly just that all the inhabitants should contribute to their formation and maintenance. Now, suppose that the government, wanting to execute the work quickly, borrows large sums of money upon the promise to pay interest for it out of the taxes of the country. Now, the money borrowed to erect the sea-dykes is withdrawn from other purposes; and if it had not been spent in erecting the sea-dykes, something else might have been created with it. But this is perfectly evident, that the sea-dykes are something. The people of the country wanting them have paid money for them, and therefore they are to be placed in the same category as any other property.

Now let us suppose that in order to make the original loans more generally useful and convenient for the lenders, the government makes the certificates, or vouchers of the loans, and the right to receive the interest, transferable—Would it not be separate and independent property? call it by what name we please—stock, or funds, or public debts—it is perfectly evident that it is independent property.

Now such a country is Holland, which draws 20 feet of water. The sea-dykes of Holland were formed, and are maintained, at a great expense.

Now let us ask this question, are the sea-dykes of Holland part of the *wealth* of Holland? Under the peculiar circumstances of that country, they are wanted, they are a utility, they are the result of human labor, and they are embodied in a material form. Taking the very narrowest view of wealth that any Economist has taken, these sea-dykes, under the peculiar circumstances of the case, answer all the conditions of wealth. It is perfectly clear that they stand in just the same position as roads, canals, and railways, and a great quantity of the other fixed capital of the country. The people continually want them, and they pay a portion of their annual income to the persons who made them, and that forms the income of the persons who constructed them, and is justly reckoned as a separate item in the catalogue of the general income of the country.

So the stock of any other public company engaged in any trading enterprise is manifestly part of the wealth of the country. But the value of this stock manifestly depends upon the income which accrues to the company, and that income is derived from the incomes of the general community. The subject of shares in public companies is more fully considered further on.

It is perfectly manifest that the public funds are property analogous to the stock or shares of any public trading company. But a country may have other enemies besides the sea. She may have human enemies, and it may be necessary to raise fleets and armies to defend her existence. And to preserve her security from these enemies it may be necessary to borrow large sums of money upon the promise of paying an annual interest for it out of the income of the country, and the shares of those who advance this money may be made transferable, and are the public funds, or public debts.

Now it is evident that the funds, created to obtain this moral security, are just as much separate property as the funds, or stock, created to obtain the material security of the sea-dykes. In either case it is a service done to the general public, who have to pay for it out of their general income, just as they pay for every other service whatever. And the incomes of those who render this service, stand in the same position as the incomes of those who render any other service whatever.

These considerations manifestly shew that the funds, or public debts, are property, as much as any other property, and they are properly reckoned as independent items in the general property of the country. No doubt the money might have been spent in some other way, and some other product might have been obtained instead. It is also true that the expenditure may have been injudicious, and other things might have been produced which would have been more advantageous for the country, but these considerations in no way affect their existence as property.

106. Mr. Mill says that "the cancelling of the debt would be no destruction of wealth, but a transfer of it, a wrongful transfer of it from certain members of the community for the profit of the Government, or of the tax-payers. Fund-

ed property, therefore, cannot be counted as part of the national wealth." This seems to be a very strange conclusion. A *transfer* of wealth, in no case that we can imagine, is *destruction* of it. But Mr. Mill says, that because the *transfer* of it is not the *destruction* of it, it is not to be counted as part of the national wealth. A highwayman knocks down a traveller, and robs him of his money and his watch, now this is not a *destruction* of wealth, but only a *transfer* of it, and, therefore, the money and the watch are not to be counted as part of the national wealth! A servant robs his master, that is only a *transfer*, and not a *destruction*, of wealth, and, therefore, the thing stolen is not to be counted as part of the national wealth!

What we have said here is sufficient, we think, to shew that the funds are independent property, and that the income of the fundholders is property reckoned as part of the income of the nation. For more on the subject we refer to **FUNDS**.

107. We must now endeavour to make a concise survey of property in general. To enter into all its minutiae would, of course, require a large volume. What we shall now attempt to do is merely to endeavour to classify and enumerate the different species of property which exist. Most persons would assent, we think, to the proposition that "wealth" and "property" are convertible terms. If, therefore, we wish to obtain an accurate definition of wealth, the subject matter of Political Economy, it seems to us to be clearly necessary to consider all the various species of property that exist, and then to frame a definition of wealth in accordance with those species. We must frame the definition from the science, and not construct a science from the definition.

108. In the first place, then, what is **PROPERTY**?

The idea suggested to most persons by the word *Property* would be goods, and chattels, land, &c., &c., and *things* of all sorts. Just as when people hear of a man's having a great *estate*, they think of the acres of land: but this is a very great mistake indeed.

The word "Property" is, like several other words, an example of that philosophical inaccuracy which is unfortunately so prevalent in English, by which something related to, or connected with, a thing is used as a name of the thing itself. There are a large class of such words, but we shall only mention three here:—they are "Currency," "Estate," and "Property."

The word *currency* was first used as an attribute of money. Money was said to be current. Hence writers began to speak of the *currency* of money. Just as they speak at the present day of the *currency* of a *report*, or the *currency* of an *opinion*. At last, about the middle of the last century, writers began to call the money itself *currency*, by a most gross abuse of language. This however has now become a practice far too strong to be shaken. But it is nevertheless a gross confusion of idea. It would be just as rational to call an opinion, or a report, *currency*, as it is to call money, *currency*.

The same observation is true of the word "Estate." The word *estate* properly means a person's **INTEREST** in land, or in goods and chattels.

But by a gross confusion of idea, it is in common parlance applied to the land itself, or the goods and chattels.

The word **PROPERTY** has been used with a similar confusion of language. It is almost invariably used to denote things, such as land and goods. But the meaning of the word *Property* is the **RIGHT** to *use a thing*, and not the thing used. Thus as the correct expression is the "Currency of money", an "Estate in land", so also the correct expression is "Property in land," or "Property in goods," &c.

Hence we see that **PROPERTY** is not anything vested in the thing itself, nor the thing itself, but it is an attribute vested in the **PERSON**.

109. Now things which may be the subject of property are, as regards Political Economy, divided into two fundamentally distinct classes.

I. There are certain things which we may buy, which are actually in existence at the time we buy them.

Thus if we buy a watch, the whole thing is actually in existence. We may buy it for the sake of continuous use, to last all our lives; or for an indefinite period. But the whole thing that we buy is in actual existence. So if we buy bread, or articles of food, they are in a state of complete existence. They, it is true, are bought for the purpose of immediate destruction, and not continuous use. So articles of clothing; they last longer, and are for the purpose of continuous use. So articles of furniture, books, carriages, horses, &c. All these are bought for the purpose of use, which may be more or less continuous, as the case may be. But this feature is common to all these things. When we buy them, they exist in a complete state, and capable of immediate use and enjoyment. We may say therefore that all these things may be used in their totality at the time of the purchase.

But these things are only a very small portion of the things which may be made the subject of property. The incomparably greater portion of things that may be made the subject of property, have no actual present existence at all, but only come into existence at future intervals of time.

II. Such is the foundation of the value of the Land, the Public Funds, all annuities, shares in all commercial enterprises of all sorts, Banks, Railways, Insurance Companies, and Commercial Credit.

Now the fundamental characteristic of all this class of property, which from its mere enumeration manifestly includes nineteen-twentieths of existing property, at least in this commercial country, is this, that it cannot all be used or enjoyed at one time. The actual use and enjoyment can only come into existence and possession at definite intervals of time. But yet although the enjoyment is future, nevertheless the **RIGHT** of enjoyment and use is **PRESENT**, and may be bought and sold, and, in fact, the present value of all these future intervals of use and enjoyment is the value of the *Property*.

110. And here we may say that the study of the Theory of Property is absolutely indispensable to the student of Political Economy: a truth which has been greatly lost sight of by many writers on the subject. It is the very basis of his science. We may take this opportunity of recommending as admirable summaries of

it; *Williams on the Law of Real Property*, and *On the Law of Personal Property*. These works are quite as indispensable to the student of Political Economy as they are to the student of Law. We may also commend to their attention a paper *On some Points in the Theory of the Law of Property*, by Mr. Stephen Martin Leake, in the *Papers read before the Juridical Society*, 1855-8, p. 531, which contains several points on the subject very clearly stated, and from which we shall make some extracts. Mr. Leake says, p. 533, that the entire property in a thing is the right to the *whole* use of a thing. That things differ in their use according to their nature, some perish in the use, some perish from causes independent of the use, but afford a continuous use so long as they endure. Some, like land, are absolutely indestructible, and supply a continuous, uniform, and constant use for ever. Of all these land is the standard, or type, that is to say, a subject indestructible in its nature, its use is unlimited in duration, and constant and uniform in quality, and possesses all qualities in the highest degree, which other subjects of property possess only partially, and in a limited degree." For these reasons, Mr. Leake says that the Law of Real Property in practice may be called the grammar of the Law of Property in general. In this remark we entirely concur, and we may say that the theory of the Value of Land is the grammar of the theory of Value in general.

111. We must now still further investigate the nature of the value of land. When it is said that the value of the land of Great Britain is some enormous sum, we don't know what; but say 2,000 millions, what does that mean? Does it mean that the value of the existing produce of the land is worth 2,000 millions?—Certainly not. The value of the Land consists in this, that it produces year by year for ever something which men want, and will pay for, or for which they will give some other product, or service, in exchange. Now it is evident from this that as the actual use and enjoyment of the land can only come into possession at successive intervals, no man can use or enjoy the whole of his property in land. And as these products cannot be accelerated, no man could squander away the whole of his land as he might property which was in a complete and final state of existence. Hence, if families were put in possession of a large extent of land, although they might squander the yearly produce, they could not waste or dissipate their capital. In many countries families have endured for centuries, in possession of the same land.

112. But by the introduction of money, a new power was called into existence. Although men could not sell the actual produce of their land, which was only to come into existence several years afterwards, they could sell their property in it, or their Right to receive it. And it is quite clear that each annual product is the subject of distinct property, and that the whole series for ever, is a series of separate properties, each, or all, or any number of which, may be sold, or exchanged, for anything else. And the method of ascertaining their present value is as follows.

113. We have said that Capital is an increasing quantity, and the continual increase may always be capitalised, and so used to produce

further increase. The increase of different species of Capital proceeds, of course, at very different rates. But it is quite evident that it all has the capacity of increase in a geometrical ratio. Not that it ever actually does so, for various reasons, to be more fully examined hereafter. But at least it has the capacity for so increasing. As this law is universally applicable to Capital, it holds good with regard to money, as well as other species. Thus, if money be invested in the funds, and allowed to accumulate, it will manifestly increase at compound interest, or in a geometrical ratio. And it is quite easy to tell what any given sum of money will amount to in any number of years, at any given rate of increase. And it is just as easy to perform the inverse operation, and find what sum, at the present time, would amount to any sum in a given number of years, at any given rate of interest. And that sum is called the *Present Value* of the future sum.

114. Now the produce of the land in any given future year may be valued in money, and the *present value* of that money may be ascertained. The same may be done for all the future years for ever, and the sum of the series of these future values is the total present value of the land for ever.

Although this series is infinite, yet its sum is a finite quantity, which is easily ascertained.

Thus the value of the property in the land for ever may be accurately measured, and exchanged for money like any other commodity, and the owner of the property may use and enjoy the whole value of it.

115. To show how the value of things may vary without any change in the thing itself, and upon what incorporeal considerations it depends, we may observe the difference in the value of land caused by a difference in the rate of interest.

As the present value of each of these annual products is calculated at compound interest, it is clear that the higher the rate of interest is, the faster they will diminish. Hence if the rate of interest is high, the value of the entire property will be a great deal less than when it is low.

The value of any number of these future products may be ascertained. But it happens that when the value of the whole series is to be found, the practical rule is very simple.

To find the value of a perpetual annuity of £1, we have only to divide £100 by the rate of interest, and the result is the present value of the annuity.

Thus if the rate of interest were 10 per cent., the value of a perpetual annuity of £1 would be £10.

If the rate of interest were £3 per cent., it would be £33 6s. 8d.

Thus the present value of the very same annuity is extremely different according to the rate of interest. And the value of the very same land producing the same annual revenue will be three times as great, when the rate of interest is 3 per cent. as when it is 9 per cent. In the reign of Charles II., the usual value of land was 10 years purchase. In the present day it may be taken at an average of 30 years purchase. Thus we see how enormously the value of the land of Great Britain may vary without any change in the land itself, or any depreciation of the value of money with respect to commodities.

116. We thus arrive at this fundamental conception that the saleable value of land consists in the **RIGHT** to receive the annual profits of the land.

Thus we see that a mere **RIGHT** to receive a thing which has no actual existence at present is an Economic Entity, or an Economical Element, which may be bought and sold like any existing useful article. This is a mere right of future enjoyment, and according to what we have said regarding negative quantities, it is to be classed with them.

We may say without any violent metaphor, that when a man has purchased an estate in land, it *owes* him an annual payment. And this is more clearly manifest when he lets it to a tenant, who enters into an obligation to pay him an annual rent. Each obligation to pay him rent year by year is an independent Economic Entity, just the same as if it were embodied in a Bill of Exchange, or a Promissory Note.

Now the entire property in the land consists in the **RIGHT** to receive all the profits that can be made out of it of every description, either on the surface or below it. But these profits are of extremely different sorts. And the entire property may be divided and separated into any number of smaller parts. And it is scarcely necessary to say that each separate portion is also an Economic Element, and may be sold and exchanged separately, and is a separate article of wealth. And each of these separate properties may be in separate hands, or they may be all merged in one person. But though they may be all vested in one person, they are nevertheless separate articles of wealth. And, in short, whatever may be separately and individually exchanged without any connection with anything else, is a separate and independent article of wealth, and must be reckoned separately in any catalogue of wealth.

This perhaps, may appear an unnecessary truism to some readers, but we shall find hereafter, that it is a doctrine of immense practical importance, which has been greatly lost sight of in many economical discussions and treatises.

117. We may then define property in land in general terms thus:—It is the right to exchange products which are not yet in existence, for other products also not yet in existence, and for services to be done by men who are not yet born, to the end of time.

Now, this entire property in land, says Mr. Leake, p. 536, "is divisible in three distinct ways:—

"1. By division of the subject of property.

"2. By division of the current use into concurrent portions.

"3. By the division of the continuous use into successive intervals."

In the first case, the division may be either vertical or horizontal. The land may be split up into any number of portions. Thus the owner may sell entirely one acre out of ten and keep the rest, or he may retain the whole right to the surface himself, and sell the right of digging for minerals, coals, stones, &c., below the surface. And each of these rights is a separate article of property.

In the second case, the property in the land itself may remain with the proprietor, but separate estates may be carved out of the profits of

it. Thus tithes, rent charges, annuities, may be charged upon it. So also there may be what are called *easements*, that is, where other persons have a right to use it in a particular way, or for certain limited purposes, such as a right of common, right of pasture, right of way, right of shooting, right of fishing, &c.

In the third case, a man may have the right to the actual use, possession and enjoyment of the land for a certain number of years, and then it may pass to other persons. The person who has the right of present possession and enjoyment is said to have an estate in possession, and the estates of those persons which are only to commence at a future time are said to be in reversion, or remainder.

118. Now of all these various rights, which are all distinct subjects of property, the estates of those persons alone who are in actual possession and enjoyment of the surface of the land, are usually called corporeal rights, or hereditaments, all the others are called incorporeal rights, or hereditaments. Mr Williams (*Law of Real Property*, p. 196) considers that estates in reversion and vested in remainder, may be considered as somewhat of a mixed nature, because in process of time they become corporeal. All the others are considered as purely incorporeal. But Mr. Leake, justly we think, says p. 541, "The distinction however between corporeal and incorporeal rights is altogether questionable, both in the nature of things, and in theory. All rights are equally incorporeal, inasmuch as they subsist in a person by mere force of law; and all rights are equally corporeal inasmuch as there must exist a real subject matter in the use of which the right consists. All property of whatever kind is an incorporeal right to the corporeal use and profits of some corporeal thing." In the first part of this extract we entirely concur. The distinction between the property in the surface of the land with the right to grow corn, &c., as a corporeal right and the right to dig for minerals and coals below its surface, or the right to shoot game on the surface, as an incorporeal one, seems to us to be unphilosophical. We therefore concur with Mr. Leake that all property is equally incorporeal, inasmuch as it really means a **RIGHT** residing in the person, and not a thing.

119. But with respect to the next part we are not so disposed to concur, at least if we have understood him correctly, which we are by no means certain of. He says that all rights are equally corporeal, because there must exist a real subject matter in the use of which the right consists. "All property of whatever kind, is an *incorporeal* right to the *corporeal* use and profits of some *corporeal* thing." Now to all this we agree up to the last four words. That profits are corporeal we admit, but to say that the source from which these profits are derived is necessarily *corporeal*, in the sense which we think Mr. Leake means, is, we think, an oversight. No doubt there must be a subject matter out of which profits arise, but that source, or capital, may be incorporeal. The subject matter, therefore, of a right may be purely incorporeal, as we shall see further on.

We have said enough we think on the subject to explain the general nature of the theory of the Value of Land, the standard case of Value.

In this case we observe that the source of the

annuity, the land, is corporeal, and before our eyes. It may be seen and handled. Moreover the fruits of it from which profits are made, viz., the corn and the cattle, exist corporeally before our eyes, and may be handled, and measured. It is by the exchange of these corporeal products for other products and services that we obtain the enjoyment of the property in the land.

120. But we shall now proceed to shew the analogy between this standard case of Value, and other immense classes of cases. We shall first deal with a class of cases in which the source or instrument of the profit is corporeal, like the land. But we shall sponge out the materiality or corporiety, of what is analogous to the produce of the land, namely the service performed by the instrument, and which brings in the profits, or the instrument, as corn and cattle bring in the profits of the land. And we shall call upon our readers to believe in the real existence of these profit-producing incorporeal elements just as much as in the existence of the material corn and cattle.

We have thus obtained two cases of Capital and Produce. The first, in which the Capital and the Produce are both material; the second, in which the materiality of the Capital remains, but the Produce is immaterial. But in either case, each are Economic Elements. We shall also find that there are two other cases, correlative to the two first; namely, a third one, in which the Capital or source of Produce is immaterial, and the Produce material; and, lastly, we shall sponge out the corporiety both of the Capital and the Produce. And we shall call upon our readers to believe in the real existence of these incorporeal sources of revenue, or this incorporeal capital, producing incorporeal entities, or elements, which are exchanged for corporeal profits, and which have as real an existence as much as the land, and the corn and cattle. And this incorporeal capital and its incorporeal produce may be measured and valued with as great certainty as any material article whatever. And when we have surveyed all these kinds of property, we shall be able to form some estimate of the magnitude of property in this country, and the domain of Political Economy.

121. As an example of the first case of this latter species of property, we shall instance Railways, and Canals. It is perfectly clear that what we may call the source or instrument of the annuity, analogous to the land, namely the railroad, or the canal, formed and maintained at a vast expense, is corporeal and visible like the land. But is the service which the railroad or canal is capable of rendering, and which produces, or *draws forth*, (*PRODUCTION; LABOR*) the profits, corporeal? Whence do the profits of the railroad or canal come? They are given by the public in exchange for the service which the railroad or canal is capable of rendering, namely the transport of persons and goods. Something which is purely incorporeal. And yet though this service can neither be *handled* nor *seen*, its value may be *measured*, and is so, with as great certainty as any corporeal element.

The railroad is constructed on the expectation that the public will require and pay for the transit of their persons and goods. This is a mere incorporeal service, and yet it is exchanged for

profits, just as corn and cattle are, and is as real a source of revenue as they are.

Now it is perfectly clear, that though the railway or canal may have cost a very large sum of money, the value of the shares or stock has no reference at all to the cost of construction, but is entirely dependent on the value of the custom of the public. The actual line of road, and the waterway, are wholly distinct elements from the business which is conducted on them, and they may be separated and divided.

In fact, the business of the railway or the canal, may be *separated* from the railway, or canal, itself. And it is perfectly well known that when railroads were first made in England, it was intended and expected that the property in the railway itself, and the property in the business on the railway, should be separated. But it was found that such a separation of powers would probably be dangerous, and it was necessary for the safety of the public, that both the railroad and the business of working the railroad should be vested in the same hands.

But in canals the same reasons do not apply. And the property in the canal itself, and the property in the business of working the canal, are almost invariably, we believe, in different hands; the latter merely paying a toll or rent to the former. Now, it is perfectly clear, that the canal is corporeal property, and the business of the canal is wholly incorporeal, and yet that business produces a revenue just as much as the corn and cattle from land.

122. Now in the case of railroads and canals, it is perfectly clear, that it is the incorporeal property which gives value to the corporeal property. It is the custom of the public which gives the whole value to the railroad, or the canal; just as it is the demand of the public for corn and cattle that gives value to the land. If there were no demand for the services of the railway, or canal, they would be worth nothing whatever, whatever sum they may have cost. More than that, they would probably be a nuisance. Or if the demand of the public for their services were to cease, they would cease to be valuable, however valuable they might once have been. There are many instances in England of canals which were once extremely valuable, having been totally ruined by the competition of railways.

Here, therefore, are manifest instances of the second case we mentioned, where the source or instrument of production or capital, is corporeal, and the product is incorporeal, and yet the whole value of the corporeal capital depends upon the incorporeal product.

And the truth of the great fundamental law we laid down above is indisputable. *It is demand, or consumption, and not labor, that gives value to production.*

123. In the cases we have just mentioned, the outlay of capital in forming the instrument which is to render the service is so great, that the profit is often considered as little more than profit on the sum spent on the instrument. And in these cases we may consider without any violent metaphor that the instrument itself produces the service. Because though no doubt there is human labor employed in driving engines, &c., and men and horses in the barges and canals, so also there is a great deal of human labor em-

ployed in growing corn, but yet we consider corn as the produce of the earth, rather than of the labor of men, because, after all, the earth is the predominating element in the production of corn, and the labor of man is subservient to it. So also in railroads and canals, they are in a similar way the predominating elements, and the labor of men and horses is subservient to them. In each of these, we think it will be acknowledged that the corporeal element is primary, and labor, though indispensable, is secondary. But there are a great many other trading companies, in which the importance of the corporeal element constantly diminishes, and the importance of the human element constantly increases, till at last the corporeal element sinks altogether into insignificance, and is only incidental, and is only present in consequence of the necessity of men to have some place to rest upon. But the actual business is wholly human.

124. Thus in great public trading companies, like banks, and insurance companies, the corporeal instrument in which the business is carried on, is altogether subordinate to the nature of the business carried on. In a great bank or insurance company, the value of the actual building is a mere fraction of the capital. The value of the shares is entirely regulated by the value of the business, which is a purely incorporeal entity. The value of the shares in the London and Westminster Bank does not in any way depend upon the value of the banking house, nor even upon the quantity of money paid in, or original capital; that only forms a limit below which it would not sink. But it depends upon the gigantic business created by the skill of the managers of the company. And can this be seen, or handled, or is it a corporeal matter? Certainly not. It is purely incorporeal. But yet it may be measured in value as accurately as a hundred weight of cheese, and it may be transferred in just the same way.

125. Now, what does the value of the shares in these immense companies consist in? It is the *RIGHT* to receive and participate in the future profits of the business. An incorporeal right in an incorporeal entity.

And here, perhaps, it may not be amiss to say a few words as to the nature of shares in commercial companies, such as a bank. It might perhaps seem to some persons, that the stock, or shares, in a bank were identical with, and *represented*, or were one property with the very money paid in as actual capital. Thus if the money paid in as the capital the bank were £1,000,000, and an equal amount of shares were created and given in exchange for this money, it might perhaps seem to some that these shares were *one* property with the actual money. This, however, is a most important error. In the first place, it is clear that if the shares were merely *one* property with the actual capital, they never could exceed it in value. For if a man has merely the right to receive back the identical quantity of money he has paid in, why of course the share cannot exceed it in value.

126. But when a shareholder pays in money to form the capital of the bank, the property in it is entirely gone from him, in his individual capacity. The property in the money passes to the corporation, which is a distinct entity from its individual members. When then the share-

holder transfers the property in the money to the corporation, he receives in return a share.—And what is a share? Is it an individual right to part of the original capital? Certainly not. Except in the extreme case of the dissolution of the company, a shareholder has no right to demand back any of the original capital. What then is the share?—It is the *RIGHT* to a certain portion of the *profits* to be made by the business of the company. The shareholder gives the property in his money to the company, and he receives in return the *right of sharing the future profits*.

127. Now it must be perfectly clear beyond dispute, that the money paid in, and the right to receive the future profits of trading, are two separate and independent properties. Hence the capital of the company, and the shares in the company, are two separate and distinct properties. And it is perfectly possible that the capital of the company may be entirely lost and dissipated, and yet the shares be of immense value.

In the first place, the money capital may have been converted into other things, which are wholly useless and valueless if divided or broken up. The money capital of a railroad company has been converted into embankments, and drains, and tunnels, and bridges, and station houses. What is the value of these things, to sell independently? If the demand for a railway were to cease, the original capital would be found to be almost entirely dissipated and sunk. In the case of a Bank, it would be different, because there the capital, supposing it not to have been lost in business, remains actually in the form of money, and that can be divided among the shareholders in the case of dissolution. But even in that case, the same rule applies to a certain extent. There are many banks whose stock has risen 200 per cent. above the value of the money originally paid in. If such a bank were suddenly dissolved, and the original capital paid in, divided among the shareholders, would they receive in money the value of the shares of the bank as they stood before the dissolution? Certainly not.

And this very clearly shews that the shares in a Bank may be of great value, and yet the actual capital gone. The value of the shares depends, as we have said, on the profits of the business established by the Bank. Now in establishing such a business the Bank may lose money, and yet after having lost money it may establish a sound and flourishing business and that gives a real value to the shares, wholly independent of the money originally paid in.

Let us take a very simple case. The sum actually paid on the shares of the London and Westminster Bank at the present time is £20, and the total paid up is £1,000,000. But the actual market price of the shares is £50, hence the total value of the shares is £2,500,000. That is, the property of the Shareholders is £2,500,000. But suppose the Bank were dissolved to-morrow, and the capital divided among the Shareholders, do they believe that they would actually receive £2,500,000 in money? They do not suppose any such thing. They know perfectly well that there is an actual deficiency of £1,500,000, to make the capital equal in value to the shares. And yet the shares have a real value, though there is no money to represent them. It is perfectly clear that that

Bank is just in the same portion as regards the shares, as if it had originally £2,500,000 of money paid in, and had lost £1,500,000 in establishing its present business.

Thus the money paid in as capital is analogous to the land, or to the railway, or the canal; the stock represents the value of the business generated by the skill of the traders,—two distinct things.

The shares bear to the capital paid in the same relation that the value of land does to the land itself. The one is the source or instrument of the annuity, the other is the annuity itself.

It is the same relation as a ship bears to the profits to be made by trading with it, which are manifestly distinct.

Now the cases of a Bank, or Insurance Company, to which the same arguments obviously apply, and a ship, afford us some considerations worth notice.

When we say that the Capital, or Source of income, is a distinct and separate property from the income itself, many persons, looking to the cases of a railway or land, might say, that it is the value of the produce which gives the value to the railway, and to the land, and if the income were to cease, the capital would be worth nothing, and that therefore they are but *one* property. This argument has some degree of plausibility, because it does apply in appearance to those particular cases, and yet it is not true generally. In the case of the railway, the original money capital has been converted into something which has no general exchangeable value. A railroad has no value except as a railroad. Should the railroad not pay in one place, it is not possible to convert it into some other property, or to transport it to another place where it would pay better. The railroad therefore has value in that particular place only, or it has none at all. But the case where the original capital remains in the form of money which is universally exchangeable, or is converted into something which is again exchangeable, or convertible, is different. Thus the Capital of a Bank, or Insurance Company, remains actually in the form of money, supposing no losses in business to occur, or it is exchanged for something, which can be reconverted into money, as bills of exchange, the funds, &c. If the business of the bank, or insurance company, should not succeed, and therefore the profits be worth nothing, the capital may still be invested in something else, and remains intact. Here it is quite evident that the original money paid in as capital, and the profits arising from trading, are two distinct properties.

So in a Shipping Company. The original capital in money is converted into ships. If the company should not succeed and make no profits, still the actual ships have value and may be sold, and succeed in another trade. And here it is quite clear that the ships are separate and independent property, distinct from the profits.

Hence we obtain this general law,—

That the Capital, or instrument, or source of profit, is a distinct and separate property, from the profits made by it.

In some cases the value of the capital may remain, and the value of the profits may remain.

In other cases the value of the profits may remain, while the value of the capital vanishes.

In other cases the value of the capital may remain, while the value of the profits vanishes.

In other cases the value of the profits and the value of the capital may vanish together.

No one accustomed to mathematical reasoning will have the slightest difficulty in comprehending this.

128. Now, the point we have been aiming at all this time, and we think it is satisfactorily shewn, is this, that shares in public companies are separate and independent property. And they are purely of an incorporeal nature. For we need hardly say that the actual piece of paper on which the writing or certificate is, is merely the *evidence* of the right, which might exist without any material evidence at all.

Here then is incorporeal property, which is not embodied in any matter, which may be transferred from person to person just as much as material property, and it is really existing property as much as gold or silver, and is a portion of public wealth.

129. But not only has a public company shares which are saleable, and valuable property, of an incorporeal nature, but every successful trader and merchant has attached to his business, property of a like incorporeal nature, which he may sell and transfer, just as much as, and separately from, all the stock in his place of business, and the premises themselves in which the business is carried on, and this is called the *GOODWILL* of the business. It is the right to receive the future profits of the business. When a man has established a business in any place, and by his reputation created a demand for his products, or services, the expectation of the continuance of that demand, and the *RIGHT* to receive the profits to be made from it, is independent and separate property, and capable of transfer and sale. And is fully recognized by Courts of Law as part of the fruits of accumulated industry, just as much as any material product.

J. B. Say, we believe, was the first to notice this species of property, *Cours d'économie politique*, Vol. I. p. 532, and he gives a curious instance. "Il y a dans Paris plusieurs magasins qui par cette portion de leurs fonds, ont successivement enrichi depuis plus de deux cents ans, les familles entre les mains de qui ils sont tombés. Les uns ont passés des pères aux enfans, comme le magasin portant l'enseigne de l'Y, rue de la Huchette, qui date du commencement du dix-septième siècle, d'autres ont été acquis à titre onéreux par différens propriétaires. Ces réputations durent aussi long temps que les propriétaires se conduisent d'après les mêmes principes, et même un peu par delà. Lorsqu' ils en changent, la réputation se perd graduellement, comme un capital que l'on dissipe; et alors la chalandise ne vaut plus que ce que valent les autres, et quelquefois moins.

"Dans les villes populeuses et considérables, où toute espèce de vogue équivalant à une fortune, c'est un bon calcul que d'acquiescer une chalandise par des soins assidus; parce qu'alors elle repaie avec usure ce qu'elle a coûté. Il n'y a personne qui ne puisse en citer plusieurs exemples."

Now the value of the goodwill of a business of a private shop, which manifestly depends so much upon the personal qualities of the tradesman, is far more precarious than the expectation of the profits to be made by a great and permanent pub-

lic company. And, therefore, it sells for much less. But yet it is a value, and a very important one, and is absolute property, of the same nature as the share in a public company.

130. The same considerations apply to a literary work, which has established a reputation. When a demand for a work has been created, there is an expectation that it will continue, and that future profits will accrue from its publication and sale. And the RIGHT to publish and sell the work, and receive its future profits, is a distinct and separate property from the actually existing printed copies of the work, and may be sold separately. It is purely incorporeal, and yet it is recognised as actually existing property. It is called COPYRIGHT.

131. And this copyright, or right of receiving future profits, may be of immense value, even although the actually printed copies should very soon lose the greater part of their value. Thus a well established newspaper is an extremely valuable property, even though the value of any particular copy diminishes extremely rapidly, and sinks almost to nothing very soon after it is published. The value of the *Times* newspaper is enormous, even though the back numbers would sell for very little. And this value of course springs exactly from the same source as the value of the land, or a railway—the demand of the public. And this newspaper property is manifestly incorporeal, and is just as real a source of revenue, and wealth, as any material capital whatever.

132. But not only may a dealer in material products, create a business by his industry and labor, which may be sold, but dealers in immaterial products, such as medical men, solicitors, &c., may do the same, and it is capable of being sold, and is of a purely incorporeal nature. And this is usually called the *PRACTICE*, in French *clientelle*. Which is the RIGHT of receiving the future profits to be made by it. And this is evidently of the same nature as the other species of property we have just been describing.

These seem to us to be a pretty full enumeration of the different species of business. But in order to cover and provide for all omissions, we state this general proposition. *That the RIGHT to receive the future profits of any business whatever, though called by a variety of different names, is an incorporeal Economic Entity, or Economic Element, which has as real an existence as any material product.*

133. Now, before we enter into more disputed territory, let us make a few remarks. We have, we hope, satisfactorily shewn that shares in commercial enterprises of all sorts, copyrights, the "goodwills" of businesses, the "practices" of professional men, are substantive Economic Elements. And they are all of a purely incorporeal nature. What the value of all the shares in commercial enterprises may be, including Railways, Canals, Banks, Insurance Companies, &c., &c.; what the value of the goodwill of each place of business may be, what the value of all literary property, what the value of all professional incomes may be, is not easy to estimate. But it is quite clear that it is to be reckoned not only by hundreds, but by thousands of millions, in this country. And it has as real an existence, it is as true a source of revenue, it is taxable

property, in all respects as much as material property, and yet it is wholly neglected by Economists in framing a definition of Wealth!

134. Even those Economists, who have admitted the existence of incorporeal elements in Political Economy, have, with few exceptions, confined their remarks to qualities of the person, or mind, which produce a revenue, but which are fixed and inherent in the person, and of which he cannot divest himself. These we have seen above (sec. 52,) are the only immaterial products which M. Baudrillart contemplates, when he denies the admission of immaterial products into Political Economy, and remarks as one reason for doing so that they cannot be exchanged, "*Les produits, qu'on appelle immatériels, soient en eux-mêmes pourvus de la faculté d'être échangés.*"

"* * En elles mêmes, elles sont invendables, inaliénables, intransmissibles." Moreover, it is commonly said, that these incorporeal elements perish in the using. But here we have shown the existence of a stupendous mass of incorporeal property of a wholly different nature from that contemplated by Malthus, or M. Baudrillart. The incorporeal property we have been considering, is as permanent, and enduring, as capable of perpetual existence as the land itself, or any material product. What is there to prevent the Bank of England, or the London and Westminster Bank, enduring as long as the land of England itself? Why should not shares in them, a purely incorporeal property, exist as well 1,000 years hence, as well as to-day? There is no principle of decay in them. Still more, is there not every probability of the shares in the London and North Western Railway enduring as long as this country itself? No doubt there is the contingency even of the Bank of England failing, or being destroyed, but that is only an accident, and not necessary. Moreover, this incorporeal property is capable of being transferred from hand to hand, or from person to person, just as easily as any material product. A man can denude himself of the property in these shares, or in a copyright, just as easily as of the property in a watch. And Economists in treating of property, and in framing a definition of wealth, have wholly omitted all notice of this enormous mass of property. One of the objections against admitting incorporeal elements into Political Economy is that they cannot be valued. We reply that they not only can, but are, valued with as great a precision as material products.

135. These considerations also confirm the necessity of expelling the limitation of "the result of past human labor" from the definition of capital, as we have already shewn. When a man invests money in the shares of the Bank of England, those shares become his capital. The money he bought them with may have been the result of past labor, but are the shares he purchases, the result of past labor? Certainly not, they are the expectation of profits to be derived from future labor, or industry. Yet as anything which produces a revenue is capital, they become capital to him.

136. We now come to the third division of the subject, in which the capital, or source, or instrument of production is immaterial, or intellectual, but the product is embodied in some matter in which the ideas are the predominating

element, and the materials in which they are embodied, subordinate or insignificant. In which, in fact, the cause of value is the ideas represented in the matter.

These comprehend the cases of great painters, sculptors, and authors.

It is evident that the source of production, or capital, is in their minds. But they have no means of communicating their ideas to the world at large, except through the medium of paintings, sculpture, and books.

In books, which can be multiplied *ad libitum*, the value of the product is reduced, and profits are made by extracting a small one on the sale of each copy of the work. In sculpture, the material is itself expensive, but it bears a very small proportion to the value of the finished work of a great sculptor. In paintings, the value of the actual materials is infinitesimal. A great artist may produce a picture worth £1,000, out of materials whose value is not above a few shillings. Yet it is indispensable to all these, that the creations of their mind should be embodied in some matter, in order to make them appreciable to the world at large. Hence we think their productions may justly be styled material. Now it is exactly the same cause that gives value to their minds as gives value to the land, namely, the demand of the public for their products. And the minds of these artists produce the same revenue to them as if they had so much land. How then is it possible to say that the value of their abilities cannot be measured? If an artist, or an author, can make £1,000 a-year, the value of his capital, his mind, is to him just the same as the value of any other source of revenue. The only thing is, that it is more precarious. It is liable to fail. But that does not affect the question so long as it exists. It is clear also, that it is equally national capital, with any other capital, or source of revenue, because it produces something which people will pay for. And the products of this immaterial capital can be accumulated, and preserved, and transferred; nay, they usually increase enormously in value by time. The value of pictures by the old masters has been constantly rising. And the very same thing is true of most of the works of the deceased English masters. Pictures which they parted with for mere trifles, comparatively speaking, now fetch immense prices. It is well understood now that a well-selected gallery of pictures is an excellent investment for money. And this arises from the constantly increasing taste of the English people for works of Art. We see, therefore, that Malthus was in error when he said that mental capital could not be valued. We have only to take the incomes of all the artists, sculptors, authors, &c., to discover the value of such capital.

138. We now come to the fourth class, in which the capital, or source, of the revenue is immaterial, or intellectual, and the product is also immaterial.

This comprehends the professions of the law, and medicine, and the Church, composers, actors, and performers of all sorts, and education.

A lawyer, or a doctor, may write his opinions, or prescriptions, but it is clear that their products are essentially immaterial. All of these persons undergo a long course of education, in many cases very expensive. All bestow an im-

mense deal of labor in perfecting themselves for their various duties. And that labor and expense produce them a revenue, just as much as any material source. It is, therefore, capital. And it can quite easily be valued, just like any other species of capital, namely, by the income it produces. The mind of a great lawyer produces him a revenue of £10,000 a year, it is manifestly capital to him. It is manifestly, also, capital to the nation, because they require and pay for such products. Enumerate the incomes of all the lawyers, all the doctors, all the clergy, all the composers, all the performers of all sorts, and there is the value of all these incorporeal estates, as easily ascertained as the value of all the land. Not only can the value of this capital be ascertained, but it is taxed just the same as any other capital.

139. But we have a further objection to the criterion proposed by Malthus and M. Baudrillard. We have, we think, shewn that they are mistaken when they say that immaterial capital cannot be valued in a catalogue, or inventory, of the property of the nation. Now, we object to this mode of valuing the wealth of the nation. The mode of estimating the wealth of a country by the amount of commodities existing in it at any particular time would lead to very erroneous conclusions. A country may in reality be a great deal richer when there are much less of actually existing commodities in it, than when there are more. The explanation of this apparent paradox is extremely simple. In former times it took fifteen days to convey goods from Manchester to London. Consequently it was absolutely necessary to have fifteen days' supply of any given demand constantly in existence, and on the way. Canals were then introduced, which reduced the time of transport to five days. It became then manifestly necessary to have only five days' consumption in existence, and on the road. The railroad reduced the time to one day. Consequently it is only necessary to have one day's consumption on the road. Now, it would be a very grievous error to suppose that the nation is less wealthy because there is a less amount of commodities in actual existence, at any given time, than formerly. On the contrary, the nation increases faster in wealth on that very account. Because it is a great waste of capital to call so much into existence, and to wait so long before the returns come in. Now, although there need not be so many commodities actually in existence, they can be called into existence in a much shorter space of time than formerly. Any given demand can be supplied much quicker than formerly. And that is the true test of the wealth of a country. It is to be judged of, not by the quantity of goods it may have in stock at any given instant, but by the speed with which it can supply any given demand. (COMMUNICATION; PRODUCTION.)

140. In the preceding paragraphs we have endeavoured to establish a fact that has escaped the notice of almost all Economists, viz., that a RIGHT is an Economic Element. J. B. Say was, we believe, the first to recognize the existence of RIGHTS, as Economic Elements. He was the first to acknowledge that the "custom" or "goodwill" of a shop is capital. But he has not developed the subject at sufficient length, or adequately seen its importance, nor the enormous

mass of property which falls under that principle. Lawyers have been immensely in advance of Economists on this point. Dr. Whately is, we believe, the first Economist who has seen the matter in its true light. He says, *Lectures on Political Economy*, p. 6, "I think it more convenient, on the whole, to describe Political Economy as concerned, universally and conclusively, about *exchanges*."

"It was once proposed, indeed, to designate it the 'Philosophy of Commerce;' but this, though etymologically quite unexceptionable, being indeed coincident with the description just given, is open to the objection, that the word Commerce has been in popular use arbitrarily limited to one class of exchanges."

"The only difficulty I can foresee, as attendant on the language I have now been using, is one which vanishes so readily on a moment's reflection, as to be hardly worth mentioning. In many cases, where an exchange really takes place, the fact is liable (till the attention is called to it) to be overlooked, in consequence of our not seeing any actual transfer from hand to hand of a material object. For instance, when the copyright of a book is sold to a bookseller, the article transferred is not the mere paper covered with writing, but the exclusive *PRIVILEGE* of printing and publishing. It is plain, however, on a moment's thought, that the transaction is as real an exchange, as that which takes place between the bookseller and his customers, who buy copies of the work. The payment of rent for land is a transaction of a similar kind; for though the land itself is a material object, it is not this that is parted with to the tenant, but the *RIGHT* to till it, or to make use of it in some other specified manner. Sometimes, for instance, rent is paid for a right of way through another's field; or for liberty to erect a booth during a fair; or to race or exercise horses," &c. And in a note to the part of this passage relating to the sale of a copyright, Dr. Whately says,—“This instance, by the way, evinces the impropriety of limiting the term *Wealth* to *material* objects.” In this passage Dr. Whately fully acknowledges the principle we have been endeavouring to enforce in the preceding paragraphs. Now the fact is, not only are we to acknowledge the existence of *RIGHTS* as Economical elements, but it is the fundamental conception of the whole subject, that—

PROPERTY IS NOT A THING BUT A RIGHT.

Wherever a new exchangeable Right is created, there is a new Property. Where no Right is created, there is no Property. Goods may pass into the possession of a man, and yet no right to them, or Property in them, pass with them. The property may remain with some one else.

And this distinction between the transfer of the possession of a thing, and the transfer of the property in it, has never received sufficient attention from Economists. And yet it is one of the most important points in the whole subject, and is the basis of the Theory of Credit.

Thus for instance, I may put my watch into my friend's hand, and he may put thirty guineas into mine. That operation may transfer the *possession* of these things, but it does not transfer the *property*. There is no transfer of the property until

there is an agreement, a consent of our *two minds*, that the property in each article shall pass to the other. Thus in all cases, transfer of the possession is an operation of the body, but a *transfer of the property is purely an OPERATION OF THE MIND*.

When I deposit my furniture &c. in a warehouse and receive a ticket, or warrant, to certify my right to it, and entitle me to get it back, there is a transfer of *possession*, but no transfer of *property*. The property in the goods still remains in me, and the ticket and the goods are *OWN* property, or right. There is no new right created.

But if I deposit my money in a bank and receive an instrument of credit, entitling me to demand an equal sum back at will, there is a transfer of possession *and of property* to the banker, and the instrument of credit and the money are totally separated, and form *TWO* properties. There is a new right created.

This is the basis of the Theory of Credit.

141. We shall find that this great conception will throw a blaze of light over the obscure and most controverted points in Political Economy. It has been a great stumbling-block to many persons to understand how a thing which does not yet exist can be an Economical Element, or Wealth, which must be something *PRESENT*. The true interpretation of the word Property clears up the difficulty. *The property is not the thing itself, but the right to it*. And although the thing itself may not exist, the *RIGHT* to possess it, when it does come into existence is *PRESENT*, and is an Economical Element, or Wealth. We have already seen what light this throws on the theory of the value of land, commercial shares, copyrights, &c. We shall now see what a flood of light it will throw upon two of the most controverted and least understood portions of Political Economy—*CREDIT*, and the *FUNDS*. We shall find that this conception will unravel some of the most subtle perplexities, and point out the error in some of the most widespread and dangerous fallacies in Political Economy.

142. And now that we are come to the great subject of *CREDIT*, we need hardly remind our readers, that it is one of the most controverted in Political Economy. In this place, however, we shall abstain from all controversy. We shall not even describe all the effects of credit. That is fully done under *CREDIT*, where we have collected and examined the opinions of Economists on the subject, and shewn their astonishing self-contradictions. In this place we shall merely examine shortly into the *nature* of Credit, and determine how it is to be classed.

143. We have seen above, that Adam Smith, J. B. Say, Mr. Senior, and Mr. J. S. Mill have all admitted that the natural and acquired abilities and education of men are to be reckoned as part of the fixed capital of the nation. Aristotle calls men living instruments, and J. B. Say, allows them to be accumulated capital. And we have, we think, shewn that this is not a metaphorical, but a literal truth. The industry, therefore, and expense that a man bestows upon acquiring a profession, or a knowledge of trade, is as *bonâ fide* CAPITAL, as the industry and expense he bestows upon improving and cultivating the soil.

Every man engaged in business may therefore be considered as an instrument, or source pro-

ducing profit. And not only has produced profits, but is CONTINUALLY producing them, like any other similar capital. His future productivity, therefore, is an Economical Element, which may be dealt with in precisely the same manner as the future productivity of the land, or a commercial company. And the right to its future produce may be sold just as much as the right to the future produce of land.

But though a man's future productivity may be profitable to himself, in order to make it marketable, or saleable, it is absolutely necessary that it should be BELIEVED in by others.—It is therefore called his CREDIT.

144. The money that a man possesses is the fruits of his past industry, just as the actually existing products of the land are the accumulation of its past powers of productiveness. Now, not only may the property, or right, to these be sold and exchanged, as we have seen, but the INVERSE operation may be performed, and the PROPERTY, or RIGHT, to the future products may be sold. So a man may not only sell the property, or right, to his actual money, but he may perform the INVERSE operation, and sell the PROPERTY, or RIGHT, to the future products of his industry.

Thus a trader expects that there will be a certain demand for the produce he deals in by which he will make profits. Not having the ready money to pay for the produce to the merchant, he offers him the RIGHT to receive payment at a future time. The time is calculated on the expectation that he will have sold the produce, and reaped the profit. The merchant believing in his character and capacity to pay, or fulfil his engagement, sells him the actual produce, in exchange for the RIGHT to receive payment at a future time. And this operation is called CREDIT.

145. And now, we must particularly observe this, that this transaction is not a loan but a perfect and complete SALE, just as much as if the exchange had been for money itself. The entire property in the goods passes from the merchant to the trader, in as complete a manner as if he had received money for them, and the RIGHT to demand future payment is itself an independent Economic Entity, which is considered as the equivalent of the goods, at the time they are sold. Now, though the RIGHT to demand future payment is itself an incorporeal entity, it is so likely to be disputed, or lost, that it is usual to embody the evidence of it on paper. And that paper is called an instrument of credit. These instruments are of two different forms, *orders* to pay, called *BILLS of EXCHANGE*, and *promises* to pay, called *PROMISSORY NOTES*. But as these differences of form are of no consequence whatever in considering the general nature of the subject, we may call them engagements to pay, or instruments of credit.

146. We must also observe that the paper instrument is only evidence of the right, and not the right itself. The right itself would be equally valid, and equally real, if it existed in the purely incorporeal form of a mere debt. If a man owes me money, my right is just the same, whether that right is recorded on paper or not. A man is equally the shareholder in a public company whether he has lost the certificate of his share or

not. In all cases the PROPERTY resides in the person, and is transferred by the will, or mutual consent, of the parties.

147. Now, though we shall abstain from all controversy here, we think it especially necessary to call the reader's attention to this, because it has been the real source of all the confusion on the subject. As soon as the trader has parted with the RIGHT to demand a future payment to another person, that RIGHT itself is an Economic Element, and is what is called CREDIT. It is *not* the transfer of the goods which is credit, but the disposal of the *right* to demand a future payment.

It is also to be specially observed that, because a trader sells the right to demand a future payment from him, it is no diminution of his present possessions. The future payment is to come out of the future produce. Just as when a farmer takes a farm and promises to pay a rent annually, those engagements to pay are no diminution of his present possessions. Those engagements are manifestly intended to be paid out of future produce.

148. We thus obtain this conception—That just as the future productivity of the land is a saleable Economic Entity, over and above the past products of the land, so the future productivity of a trader is a distinct and marketable Economic Entity, over and above the realized fruits of his past industry.

Now all the qualities which are necessary to make this future productivity marketable, skill, industry, and integrity, may be summed up in one word—character.

149. These considerations immediately shew the fundamental distinction between instruments of credit of all sorts, and Bills of Lading and Dock Warrants. (BANK NOTE; BILL of EXCHANGE; BILL of LADING; DOCK WARRANT; PROMISSORY NOTE.) This may truly be called the *Pons Asinorum* of Political Economy. It is one of the most subtle and important points in the whole subject. It is upon a confusion of the distinct nature of these species of documents that Law's theory of money is founded.

150. We have seen in the case of traders, that they buy goods in exchange for the right of demanding a future payment. The quantity of credit brought into commerce by these means is enormous in this country. But that is only one division of the subject.

There is a class of persons called Bankers, whose sole business consists in creating these "engagements to pay" by purchasing money, and also the "engagements to pay" of traders.

When a man deposits money with a banker, the property in the money immediately passes from the depositor to the banker, and the banker gives in exchange for it a "promise to pay" money on demand, or a RIGHT to demand money. And the property in this right to demand money, or credit, passes from the banker to the customer. The banker, having the entire property in the money, may use it as he pleases, and the customer having the entire property in the right to demand payment may use it as he pleases. Each therefore may put his property into circulation, and they form two distinct and separate Economical Elements.

151. Moreover, when a merchant has sold goods to a trader in exchange for a right to de-

mand a future payment, the latter right is not very convenient, because it is not so saleable as a right to demand immediate payment of money. The merchant therefore having a stock of these rights, or instruments of credit, goes to his banker who buys them, and gives in exchange for them a right to demand immediate payment; that is, by creating new credit. And these rights circulate just like any other Economic Elements, and are independent quantities. Here, therefore, we have goods sold for rights, and these rights sold for other rights, and each of these is independent and separate property.

152. Commercial credit is usually embodied in the form of Bills of Exchange, and more rarely in Promissory Notes.

A banker is a person who buys money and credit, usually rights to demand a future payment at a fixed time, with credit, usually a right to demand immediate payment.

A banker buys this money and credit, by creating a credit in his books in favor of his customer.

That credit created in the banker's books is called a **DEPOSIT**.

Many persons might imagine that the money deposited in a bank is the deposit. But this is a very great error. The deposit is the credit created in the banker's books; it is also called a **Bank Credit**, and is what was called **Bank Money**, or *Moneta di Banco*, in the great foreign banks, such as those of Venice, Amsterdam, &c. (**BANK MONEY**; **BULLION REPORT**, § 23; **BANKING IN AMERICA**, § 451; **DEPOSIT**.)

153. Traders' and bankers' engagements to pay are therefore separate and independent property. With the clear and distinct comprehension of this, the whole subject of credit becomes intelligible and simple. It is the want of understanding this that has plunged it into such obscurity and controversy.

154. Now, having shewn the separate existence of credit as property, we are entitled at once to draw the conclusion that it is capital. Mr. Mill says, that *anything* which may be exchanged may be capital as much as money. Instruments of credit, or simply credit, is exchangeable, and therefore it may be capital as much as money.

Now, what the measurable amount of the future productivity of traders may be, it is impossible to say. As Economists, we are only concerned with that portion of it which is actually brought into commerce; and that portion, including all sorts of it, cannot be less than £600,000,000, at the very lowest computation.

155. The difficulty of even approximating to its amount consists in this, that an enormous amount of credit is never embodied in the form of Bills of Exchange at all, but is locked up in the books of traders. These rights, as we have shewn above, are just as real entities as when embodied in circulating paper, but how is it possible to form even a conjecture of their amount? Of banks that publish their accounts we can of course ascertain their "deposits," or the amount of credit created by them. But who can guess at the amount of the deposits of all the private bankers in England, some of the greatest of which are understood to be fully as large as those of the Joint-Stock Banks?

Nevertheless, whatever the amount of these

credits may be, they are all "property," separate and distinct from all other property, and they perform the functions of money, only in much smaller sphere. They are, as we have shewn (**CREDIT**; **CURRENCY**), particular credit—money is general credit.

156. And this affords ample proof, if, indeed, any were necessary to any one familiar with physical science, that *materiality* must be entirely expelled from the general conception of an Economic Element.

157. When a man has done a service to another, and wants no immediate service in return, he receives, perhaps, a piece of money in return. And what is this piece of money? It is merely the right of demanding some service from any one he pleases. It is only a general right, or general credit. But if, instead of receiving money, he allows the debt to remain against the other, he has equally the right of demanding a future service in exchange. The only difference is, he can only demand it from his individual debtor. It is therefore only particular credit. And this may be embodied on paper, or may exist only as a debt, or invisible right. We thus see that money and instruments of credit of all sorts represent the same fundamental idea—debt,—and are homogeneous. A debt has long been recognized by law as personal property.

158. Such is the nature of Credit—or Debts. For a full exposition of its effects, and an examination of the opinions held respecting it by the most eminent Economists since it became a controverted question, we must refer to **CREDIT**. The only difficulty in the case is to understand that a **RIGHT** to demand a future payment is an independent Economic Entity, entirely distinct from any specific money or goods, and is capable of circulating in commerce, and produces all the effects of money: and it therefore may be capital. As it depends upon the belief in a person's character, it is moral capital.

Credit therefore is to the person of the trader, what the future productivity is to the land, what copyright is to a work, what goodwill is to a business, and is incorporeal capital, just as they are. They all are founded on the same principle, belief in the capacity of the respective sources to produce future profits. It is by credit that the immensely greater portion of modern commerce, in all civilized countries, is carried on.

159. Every writer who has seized the true idea of the subject, has maintained the doctrine that Credit, in both its forms of banking credit and mercantile credit, is productive capital, though some of those quoted below have contradicted themselves in the most astonishing manner, as we have shewn in **CREDIT**.

Thus Mr. Hamilton, the Secretary to the Treasury of the United States, in the Report to Congress, upon which the first Bank of the United States was founded, says (**BANKING IN AMERICA**, § 421).—"The following are among the principal advantages of a bank:—First, The *augmentation of the active or productive capital* of a country. * * * This additional employment given to money, and the faculty of a bank to lend and circulate a greater sum than the amount in coin, are to all the purposes of trade and industry an *absolute increase of capital*."

And Mr. Webster, in his speech on the renewal

of the Charter of the Bank of the United States (Ibid, § 448), said,—“Credit is the vital air of modern commerce. It has done more, a thousand times, to enrich nations than all the mines of all the world. * * * Credit is to money what money is to articles of merchandize.” In this sentence Mr. Webster has exactly seized the true idea of Credit. Money is exchangeable for commodities, but yet is distinct and independent property; so an instrument of credit is exchangeable for money, but yet is distinct and independent property, over and above money and commodities.

So also Mr. McCulloch, *Commercial Dictionary, Art. Bank*, p. 68, says,—“Those who issue such notes coin, as it were, their credit. They derive the same revenue from the loan of their written promises to pay certain sums, that they would derive from the loan of the sums themselves, and while they thus increase their own incomes, they, at the same time, contribute to increase the wealth of the society.”

Mr. Senior has, strange to say, entirely omitted the subject of Credit in his treatise; but as he says that all Economists are agreed that whatever gives a profit is Capital, that admits, by implication, that Credit is Capital.

Mr. John Stuart Mill says, that ANYTHING which may be exchanged like money, may be Capital. Now, as all instruments of credit may be exchanged like money, that at once admits that Credit is Capital. But he is a great deal more explicit than this in Book III. ch. xxii., *Influence of the Currency on Exchanges and on Foreign Trade*. He says there, “The same effects which would thus arise from the discovery of a treasure, accompany the process by which bank notes, or any other substitutes for money, take the place of the precious metals. * * *

“The value saved to the community by thus dispensing with metallic money, is a clear gain to those who provide the substitute. They have the use of twenty millions of circulating medium, which have cost them only the expense of an engraver's plate. If they employ this accession to their fortunes as productive capital, the produce of the country is increased, and the community is benefited, as much as by any other CAPITAL of equal amount.”

So also Bastiat has exactly seized the true idea of credit, (*Harmonies Economiques, Art. Capital*, p. 210, *Édit. 1855.*)—“Ainsi chose admirable, et grâce au merveilleuse mécanisme de l'échange, tout service est, on peut devenir, un Capital. * * *

Ce qui est plus surprenant encore c'est que nous pouvons faire l'opération INVERSE, quelque impossible qu'elle semble au premier coup d'œil. Nous pouvons convertir en instrument de travail, en chemin de fer, en maisons, un capital, qui n'est pas encore né, utilisant ainsi des services, qui ne seront rendus qu'au xxe siècle. Il y a des banquiers qui en font l'avance sur la foi que les travailleurs et les voyageurs de la troisième ou quatrième génération pourvoient au paiement, et ces titres sur l'avenir (i.e. instruments of Credit) se transmettent de main en main sans rester jamais improductifs.”

Thus we see that Mr. McCulloch, Mr. Mill, and Bastiat, in these passages expressly maintain the doctrine that credit is capital. How surprisingly they have contradicted themselves in other

parts of their works, is fully shown under CREDIT.

160. So much for Economists. We may quote from legal writers to show that they fully understand the truth that instruments of credit are separate and independent property. Thus, Mr. Justice Byles says, (*Treatise on the Law of Bills of Exchange, Introduction*, p. xii.) “It will not perhaps be an unreasonable inference that the Bills and Notes of all kinds, issued and circulated in the United Kingdom in the space of a single year, amount to many hundred millions, and that this species of property is now in aggregate value, inferior only to the land, or funded debt of the kingdom.” When we consider that all book debts are in reality of the same nature, and must be added to the amount of debts actually circulating in Bills and Notes, we shall see that the above estimate of the credit property in the United Kingdom is certainly within the bounds of moderation.

Mr. Leake, also, in the paper we have already quoted from, has seen the true nature of Credit. At page 534, after noticing that the Law of Real Property may be called the grammar of the law of property in general, he says, “This view of real property might be carried still further. Its principles would serve to form the foundation, not only for the law of property in general, but also for other important branches of the law. All rights are property in some sense, and are subject in some degree to the laws of property. In the law of rights in personam, or obligations, we may notice, for example, the strong analogy between obligations, or debts payable in futuro, and real estates vested in remainder.”

This, our readers may observe, is the very doctrine we have been endeavouring to enforce. That Credit is the right to make a future demand for money.

161. Without entering into any account of the controversies here, on the nature of Credit, we may endeavour to impress upon our readers' attention the distinction between Instruments of Credit, and other paper documents, such as Bills of Lading and Dock Warrants, which are frequently confounded with them.

It is one of the most important points in Political Economy to understand the distinction between an *Exchange* and a *Bailment*.

In the case of an *Exchange* there is always a transfer of properties, there must manifestly be two properties, or two rights to be exchanged.

In the case of a *Bailment* there are not two properties exchanged, but only one property entrusted by some one to another person's keeping, for a special purpose.

Now all instruments of credit arise out of an exchange, either of money, or goods, or other instruments of credit. There is always, in such a case, an exchange of two separate rights, or two properties.

Bills of Lading and Dock Warrants, on the other hand, always arise out of a *Bailment*, where there is no exchange of properties, or rights. But only some particular goods are entrusted to a person for a special purpose.

All instruments of credit are therefore separate and independent properties, or rights; they are by law and custom absolutely severed from any particular goods, or money. Bills of Lading and Dock Warrants are, on the contrary, *not* separate

and independent properties, or rights, but mere adjuncts or tickets, inseparably joined to some specific goods, and forming only *one* property with them.

Now instruments of credit, and Bills of Lading and Dock Warrants, have many features in common, they are both transferable from hand to hand; but the fundamental distinction between them is that instruments of credit of all sorts are independent property, amounting to certainly not less than £600,000,000 in this country; Bills of Lading and Dock Warrants are *nothing*.

In fact, credit is the *inverse* of money.

When a trader buys goods with money he exchanges the fruits of his *past* industry for the goods. When he buys goods with credit he engages to exchange the fruits of his *future* industry for the goods.

In each case there is a *sale*, or an exchange of *two* properties.

In order, however, to make this "promise to pay" saleable for goods, or money, the trader is obliged to inspire confidence in his character and capacity to pay at a future time. Hence it is moral Capital. It is entirely the result of his personal qualities and abilities, which Adam Smith, and all leading Economists since his time, have acknowledged to be national wealth, or capital.

Thus we see Credit is always attached to the person, Bills of Lading and Dock Warrants to things.

It has been usual to call instruments of credit, *fictitious values*, and *values of convention*. But this is a very grievous error indeed. No doubt they are often precarious. But where the credit is safe, an instrument of credit is a real value. Only being future, it is inverse to the past, which is positive, and therefore it is negative. The negative roots of equations were long called *fictitious roots*, *res or estimationes fictæ*, by the early Algebraists, who could not interpret their meaning. It was then discovered that they were equally real roots with the positive ones, only inverse to them.

162. These considerations lend additional proof to what we have said about the error of making "the saving of past labor" a necessary Element in the definition of Capital. Mr. Mill fully acknowledges that instruments of Credit, Bank Notes, and Bills of Exchange are productive Capital—but how are Bank Notes and Bills of Exchange the result of past saving? Unless, indeed, a good character, which is the thing that gives instruments of credit negotiability, or value, may be considered as the result of previous industry.

This must suffice here to explain the nature of Credit. Our readers need scarcely be reminded of the controversies about credit. What we have said is, we hope, sufficient to shew that the quantity of credit which is in the market, is a gigantic mass of exchangeable property, separate and distinct from, and over and above commodities and money, and that it is CAPITAL.

163. We now come to the last species of property, which has also been a subject of much controversy—The *Funds*. Every one would admit that a man who had £300,000 in the Funds was a wealthy man. But are the funds themselves *wealth*? The word *wealth* has received

such an arbitrary interpretation that it may perhaps be better to adopt another of similar signification. We may enquire therefore—Are the funds independent property? And there can be but one answer, they are independent property, call it *wealth*, or whatever other name we please. We have already, in the preceding part of this article, § 105, explained the nature of public debts, so that we need not repeat it here. The considerations offered there shew that the funds are distinct and independent property, just as much as railways, or any other capital, and that their value depends upon the same principle as the value of railways, or canals, viz.: the willingness of the public to pay the interest of the money sunk in them. If the public were to refuse to pay the dividends on the funds, it would be just the same as if they were to cease to use a canal. The value of the capital would immediately fall to nothing.

164. But though a consideration of the nature of the funds inevitably leads to the conclusion that they are separate and independent property, we must observe that it is in many cases very probable that the money might have been more profitably and advantageously laid out on something else. There is now we believe, scarcely a dissentient voice among men of competent judgment, but that the policy of the Statesmen and Parliaments who spent such enormous sums was utterly erroneous and injurious to the true welfare of England. It is just like some rich man spending a vast sum of money to gratify some expensive architectural whim. There the thing exists as independent property, although the policy which created it is condemned. There have been many commercial enterprises undertaken whose policy has afterwards been condemned. Many railways have been made, which it is now admitted it was a mistake to have made, and the money employed in constructing them might have been more advantageously employed. But that does not prevent these railways having a separate existence. The case of the Funds is somewhat similar; our predecessors unfortunately conceived that the objects for which these funds were created were of sufficient national importance to be equivalent to the money spent on them, and accordingly they bound the nation to pay for them. We think differently, and are still unfortunately bound to pay for them, and while we continue to do so the capital which these payments represent is independent property.

165. Mr. Mill compares the funds to a mortgage, and denies them the title of *wealth*. But his conception of the nature of a mortgage is not quite accurate. He says, p. 8. "Things for which nothing could be obtained in exchange, however useful or necessary they may be, are not wealth, in the sense in which the term is used in Political Economy. Air for example, though the most absolute of necessities, bears no price in the market because it can be obtained gratuitously, to accumulate a stock of it would yield no profit or advantage to any one, and the laws of its production and distribution are the subject of a very different study from Political Economy. But though air is not wealth, mankind are much richer by obtaining it gratis, since the time and labor which would otherwise be required for supplying the most pressing of all wants can be devoted to

other purposes. It is possible to imagine circumstances in which air would be a part of wealth. If it became necessary to sojourn long in places where the air does not naturally penetrate, as in diving bells sunk in the sea, a supply of air artificially furnished would, like water conveyed into houses, bear a price; and if from any revolution in nature, the atmosphere became too scanty for the consumption, or could be monopolized, air might acquire a very high marketable value. In such a case, the possession of it beyond his own wants would be to its owner wealth; and the general wealth of mankind might at first sight appear to be increased by what would be so great a calamity to them. But this would be an error; for however rich the possession of air might become, at the expense of the rest of the community, all persons else would be poorer by all that they were compelled to pay for what they had before obtained without payment.

"This leads to an important distinction in the meaning of the word *Wealth*, as applied to the possessions of an individual, and to those of a nation, or of mankind. In the wealth of mankind, nothing is included which does not of itself answer some purpose of utility or pleasure. To an individual, anything is wealth, which, though useless in itself, enables him to claim from others a part of their stock of things useful or pleasant. Take, for instance, a mortgage of a thousand pounds on a landed estate. This is wealth to the person to whom it brings in a revenue, and who could perhaps sell it in the market for the full amount of the debt. But it is not wealth to the country; if the engagement were annulled, the country would be neither poorer nor richer. The mortgagee would have lost a thousand pounds, and the owner of the land would have gained it. Speaking nationally, the mortgage was not itself wealth, but merely gave A a claim to a portion of the wealth of B. It was wealth to A, and wealth which he could transfer to a third person; but what he so transferred was in fact a joint ownership, to the extent of a thousand pounds in the land of which B was nominally the sole proprietor. The position of fundholders, or owners of the public debt of a country, is similar," &c. (*For the remainder, see § 98.*)

In this passage, Mr. Mill says that a mortgage is wealth to the person to whom it brings in a revenue, but not to the country at large. There is some misconception of the nature of a mortgage here. When the owner of a landed estate borrows money, the form of English law is that he conveys the estate to the lender, with the right reserved of having the estate reconveyed to him when the money is repaid. By this means the legal ownership of the estate passes from the mortgagor to the mortgagee, and the *deed of conveyance* is called the *mortgage*. The mortgagee thus becomes the legal owner of the property, and the mortgagor becomes his tenant. Now no one ever supposed that a mere deed of conveyance of property, which is all that a mortgage is, is wealth. Such is the form of the mortgage, but the *substance* is that it is a purchase of a portion of the right of the future produce of the land. Now this wealth stands in relation to the country just as it did before. The whole produce was wealth before it was divided. It remains just the same after it is divided. The portion purchased by the sum

advanced on mortgage, is just as much wealth to the country as it was before. It must be so, into whatever number of portions it is split up. There is no new object called into existence, but a mere purchase of part of an existing one.

166. But in the case of public debts there is a new object. They are money expended upon obtaining something new. Thus public debts are contracted either to make something necessary for the public security, like the sea-dykes of Holland, as we have before said, or they may be contracted to make a work of national utility, such as a railroad, or canal. It is now quite customary for governments to guarantee public companies a certain annual payment, on their undertaking to construct an important work, such as a railway, or perform some public service, as when subventions are granted to the Ocean Mail Steamers. Many persons, we allow, dispute the policy of these public guarantees. That may or may not be. But it is quite clear that some new undertaking or service is created by them, and that they are paid in exchange for something new, which is supposed to be equivalent. Now it is quite clear that the capital expended upon these undertakings by private companies, upon which a dividend is guaranteed by the government, are exactly in the same position as the public debts, or funds, although the money is not actually paid to the government, nor the service performed under the actual control of the government, like the naval and military defence of the country.

It is quite clear, then, that the sums expended by these companies are nothing but public debts, or funds, in disguise. And that they are perfectly distinct in their nature from mortgages. A mortgage calls nothing new into existence. It is a mere exchange of a definite existing sum of money for a right which is already in existence and in the hands of another person. But public debts are created to produce something new, either material, or immaterial.

167. The present discussions on the military and naval defences of the country will illustrate our meaning. Rightly or wrongly, that is of no consequence here, it is supposed that the country is not in a secure position, in consequence of the extraordinary progress recently made in the science, and the means of attack. There is a very general demand that our coast defences should be augmented. It is supposed that it will require £10,000,000 to do this. Now that money must be borrowed, which will create a public debt, and as it is a service to the entire public, they must pay for it. With the money so borrowed, and withdrawn from other production, these new coast defences will be created—a new property. Or the navy may be augmented,—a new property. Or an additional number of sailors and soldiers may be engaged, and new warlike stores of all sorts, some durable to a certain extent, such as artillery, and some perishable, like powder and ball, may be manufactured. Yet we see that something new is always done with the money advanced on the creation of a public debt. Now many persons may say that this expenditure is absurd, mischievous, and unnecessary, and that the money might have produced something more advantageous, but yet no one can deny that it is new and independent property.

168. We hope that we have made it clear to

our readers that a public debt is not analogous to a mortgage. A mortgage is a conveyance or transfer of the actual *corpus*, or capital out of which a revenue springs; a public debt is money devoted to perform some service which it is judged, rightly or wrongly, that it is for the interest of the public should be done, and which they should pay for. The public debt, or funds, are precisely in the same category as the shares of a railway company, or a bank. They are the right to receive the future payments of the general public for the service done to them in their national capacity, just as the shares of a railway are the right to receive the future payments of that portion of the public who travel by, or use, the railway, in their individual capacity. Hence we see that the Funds are a great incorporeal estate, of the same nature as copyright, commercial shares, credit, &c.

169. We have now, we think, completed a sufficient survey of the different kinds of property to enable us to form a general conception of it. Of course each separate portion of it may, and, indeed, requires to be treated at much greater length. But, in order to form a general conception, we have only to enumerate and consider all the different species of it. And all property may be reduced to one of the different classes mentioned above. We are now in a position to see whether the term "wealth" can be restricted to things embodied in *matter*. So far from it, that it is certainly within the bounds of moderation to say, *that nineteen-twentieths of actually existing wealth, or property which may be measured, exists in a purely incorporeal form, which is incapable of being embodied in matter.* We are surrounded on all sides by *impalpable, intangible, invisible*, but *MEASURABLE* wealth, just as we are by *impalpable, intangible, invisible*, but *MEASURABLE* mechanical force. The value of the land, *i.e.*, the right of receiving its future produce, is *thirty* times as great as the existing products of the land, and it is purely incorporeal. And who shall estimate the value of all other incorporeal property in Great Britain? There can be no possible doubt that its value is several thousand millions of pounds.

170. We said above, that there is a great division of opinion among Economists, as to whether the word *Wealth* is to be restricted to material things, or is to be extended to immaterial products, such as services, or personal abilities. Adam Smith admits that personal qualities fixed in a human being are part of the capital of the nation; but he denies the name of wealth to their products, unless they are fixed in something material. Malthus, however, and M. Baudrillard, and Mr. Cazenove, entirely exclude personal qualities from the catalogue of national wealth. Mr. Mill, p. 57, is obliged to consider what *Wealth* is, and whether it includes only material products, or whether all useful products are to be included in it. He says,—

"Now the utilities produced by labour are of three kinds, they are,

"First—Utilities fixed and embodied in outward objects, by labour employed in investing external material things with properties, which render them serviceable to human beings. This is the common case, and requires no illustration.

"Secondly—Utilities fixed and embodied in human beings; the labor being in this case employed in conferring on human beings, qualities which render them serviceable to themselves and others. To this class belongs the labor of all concerned in education; not only schoolmasters, tutors, and professors, but governments, so far as they aim successfully at the improvement of the people; moralists, and clergymen as far as productive of benefit; the labor of physicians, as far as instrumental in preserving life, and physical or mental efficiency of the teachers of bodily exercises, and of the various trades, sciences, and arts, together with the labor of the learners in acquiring them; and all labor bestowed by any persons, throughout life, in improving the knowledge, or cultivating the bodily or mental faculties of themselves, or others.

"Thirdly and lastly,—Utilities not fixed or embodied in any object, but consisting in a mere service rendered, a pleasure given, an inconvenience or a pain averted, during a longer or shorter time, but without leaving a permanent acquisition in the improved qualities of any person or thing; the labor being employed in producing a utility directly, not as in the two former cases, in fitting some other thing to afford an utility." Mr. Mill then enumerates the persons whose labor falls under this class—performers, actors, declaimers, showmen, soldiers, sailors, legislators, judges, &c.; and considers, "which of these three classes of labor should be accounted productive of wealth, since that is what the term productive, when used by itself, must be understood to import." Utilities of the third class, consisting in pleasures which only exist while being enjoyed, and services, which only exist while being performed, cannot be spoken of wealth, except by an acknowledged metaphor. It is essential to the idea of wealth to be susceptible of accumulation (?); things which cannot, after being produced, be kept for some time before being used, are never, I think, regarded as wealth, since however much of them may be produced and enjoyed, the person benefited by them is no richer, is no wise improved in circumstances. But there is not so distinct and positive a violation of usage in considering as wealth any product which is both useful and susceptible of accumulation. The skill and the energy and perseverance of the artisans of a country are reckoned part of its wealth, no less than their tools and machinery. According to this definition, we should regard all labor as productive which is employed in creating *permanent* utilities, whether embodied in human beings, or in any other animate or inanimate objects.

"But in applying the term *wealth* to the industrial capacities of human beings, there seems always in popular apprehension, to be a tacit reference to material products. The skill of an artisan is accounted wealth, only as being the means of acquiring wealth in a material sense; and any qualities, not tending visibly to that object, are scarcely so regarded at all. A country would hardly be said to be richer, except by a metaphor, however precious a possession it might have in the genius, the virtues, or accomplishments of its inhabitants; unless, indeed, these were looked upon as marketable articles, by which it could attract the material wealth of other coun-

tries, as the Greeks of old, and several modern nations have done. * * *

"I shall therefore, in this treatise, when speaking of wealth, understand by it only what is called material wealth, and by productive labor only those kinds of exertion which produce utilities embodied in material objects."

Now we think it is perfectly clear, that in this passage Mr. Mill has intended to sketch out the different species of things to which the term Wealth, in its widest acceptation, has been applied. Of these he rejects the last class, and only retains the word as applied to material products, and he applies the word productive labor to that which is employed in creating *permanent* utilities, which are capable of accumulation. But we think such a classification will land us in inextricable difficulties. If we only regard the permanence of the material product, in what category are we to place the producers of all articles of food, bakers, confectioners, &c.? They are employed in creating material products, which are meant to be destroyed, and not accumulated. When a person has eaten a cream ice, how is he richer or improved in circumstances? Is the confectioner who makes a cream ice, or a fruit tart, a productive laborer? Clearly he is not, if *permanence* is the essence of productive labor; clearly he is, if the materiality of the product is the criterion. But since material products are of all degrees of permanence, where is the line to be drawn between productive and unproductive labor? Where does the one shade into the other? It is clear that the same objection applies to Mr. Mill's distinction between productive and unproductive labor, as applies to Ricardo's distinction between fixed and circulating capital. They both violate the *Law of Continuity* (CONTINUITY, LAW or.) Now, how is a cream ice, the enjoyment of eating which lasts only a few minutes, a more permanent thing than an opera, the enjoyment of hearing which lasts several hours? When a man has had his enjoyment in either case, how is he richer or more improved in circumstances, more in one rather than in the other?

171. There is one class of products which we are in doubt how those Economists who restrict wealth to material objects would treat, namely, gas. Would they admit a gasometer, full of gas, to be Wealth?

172. We propose this question to all Economists who deny admission to incorporeal elements into Political Economy—Is not a man who possesses £300,000 of Bank of England stock a *wealthy* man? Would not such property be CAPITAL to him? Is not the copyright of Lord Macaulay's works CAPITAL? And what is that Stock, and what is that Copyright? Are they *material*? Are they not wealth in every sense of the term? They are certainly not material. For we do not imagine that any one would confound the certificate, or the paper on which the evidence of the right to the stock, or the copyright, is recorded with the stock or copyright itself. This Stock and this Copyright are nothing but mere abstract RIGHTS, which are purely incorporeal.

173. The fact is that in arguing for or against the admission of incorporeal elements into Political Economy, Economists have almost universally had solely in their minds services, or enjoyments which perish in the using, which are personal

products as we may say, the result of personal qualities which cannot be transferred from person to person. But they have wholly omitted all consideration of a gigantic mass of purely incorporeal property, which is augmenting every day in this country, which may be accumulated, which is as enduring and permanent, and which may be transferred from person to person, and whose value may be measured with as great facility and precision as any material product whatever. We believe there is scarcely an allusion in the works of Economists to what the Law recognizes as incorporeal personal estate, and whose value, even excluding the funds and instruments of credit, amounts to many hundred millions!

We have now completed the survey of the different species of Property, the subject matter of Political Economy, and we may say that it comprehends,—

1. Rights to the use and enjoyment of existing material products, such as land, houses, corn, cattle, furniture, books, pictures, sculptures, food of all sorts &c., &c., &c. These are of various degrees of permanence, or durability.

2. Rights to the use and enjoyment of immaterial products, such as services of all sorts, which perish in the using.

3. Rights to the use and enjoyment of products of all sorts, which have no present existence, but will only come into existence, at some *future* time, such as the future produce of the land, the future profits of trading of all sorts, either by public companies, or private persons, which includes shares in all public companies, copyrights, goodwill of business, and commercial credit; also all personal annuities, and the public funds. Although these products are future, the RIGHTS to them are *present*, and may be accumulated, and transferred by sale or exchange in exactly the same manner, and they may pass from person to person, just like any material products.

Of these three classes, the products of the first are the accumulations of the past, and those of the second are usually called into existence almost simultaneously along with the product or service, usually money, exchanged for them, they may therefore be called **POSITIVE**.

But the products of the third class only come into existence at a future time, and often only at definite intervals of future time, in some cases extending to infinity. This latter class may therefore be called **NEGATIVE**.

Nevertheless although the last class is negative, it is not to be *subtracted* from the first two, but to be **ADDED** TO them, in an inventory or catalogue of national property, if such a thing were made. They are cumulative property.

174. These considerations appear to us conclusively to decide the question, whether we are to consider materiality as an essential element of *Wealth*. "All things," says Aristotle, "are Wealth whose value is measured in money." To this definition we unreservedly adhere. If we want to know what Property, or Wealth is, we must go to an actuary, or a lawyer. It is only by surveying and contemplating ALL species of property, before we frame a definition, that we can give the same expansion and generality to our ideas, that Physicists of all classes are accustomed to. And by doing so we obtain a conception of the widest generality, in all respects analogous to the funda-

mental conceptions of the Physical Sciences, and one fitted to form the basis of a science of Political Economy as extensive as one of them.

Whatever, then, may be exchanged is an Economical Element, and whatever Economical Element is made the source of profit, is CAPITAL.

Positive, or present, Capital may be corporeal or incorporeal. Negative, or future, Capital is always incorporeal.

175. There are some of the most important classes of business which almost exclusively consist in dealing with future, or negative incorporeal capital. Thus, the business of bankers and bill-discounters consists almost exclusively in buying and selling debts—rights to future payment—purely future incorporeal property. There are persons whose business it is to deal in reversionary payments of all sorts, negative incorporeal property. So insurance offices of all sorts, for present payments deal in future risks. And as they all derive a profit from this trading, it must, according to the definition, which Mr. Senior says all Economists are agreed in, be capital to them.

176. We have said above that Capital is a continuous quantity which, passing through the present, 0, into futurity, changes its sign. The effect of this conception is at once to bring Political Economy within the category of the Physico-Mathematical Sciences.

Moreover it is perfectly manifest that all Capital has the capacity of increasing at a geometrical ratio, since the increase at any time may be capitalised, and produce new increase. Nature herself shews this, because the value of all annuities must be calculated at compound interest to bring out a rational result. Thus population, corn, cattle, money, &c., have all manifestly the capacity to increase in a geometrical ratio. This consideration alone would at once show the entire fallacy of Malthus's doctrine (*Principle of Population*, Book I., Ch. 1.) that population has a tendency to increase in a geometrical ratio, and that subsistence cannot be made to increase at more than an arithmetical ratio. (POPULATION.)

177. There is a very large class of problems in Political Economy to which the conceptions of the Differential Calculus are directly applicable.

When persons speak of cause and effect, it is a very common notion that the effect must be directly proportional to the cause, that is to say, that if we increase the cause to any extent, we shall obtain a correspondingly increased effect.

But those who are familiar with Physical Science know well that this is a very great mistake. There is an immense class of cases in Physical Science in which by increasing the cause to a certain extent an increased effect is obtained. But by increasing the cause beyond that, the effect begins to decrease. That is, at a certain point the effect reaches a *maximum*, and then diminishes.

We have exactly an analogous class of cases in Political Economy.

It would be perfectly possible to build houses that would last 1,000 years, by laying out a sufficient quantity of money and labor upon their construction. But it is well known it would not be so profitable to do so, as to build them to last for a shorter time. That is, it is bad economy to build houses to last beyond a certain time.

On the other hand, it would be bad economy to build houses that would last too short a time. It

might be possible to build houses only to last 10 years. But it would be very bad economy to build houses in a town so as to require to be renewed every 10 years. Hence it would be bad economy to build houses to last too short a time.

Hence we see that there is some point between 10 years and 1,000, for which time it is most advantageous to build a house to last. Hence there is a *maximum* of advantage which exists. And to discover that, is a direct problem in the Differential Calculus.

178. Many ancient housekeepers, especially in the Highlands, mourn over the degeneracy of the modern "naper," as they call it, *Anglicè*, bed and table linen. In their younger days, it was made by the villagers, with their handlooms, and was so excellent that it would last for generations. The modern manufacture, made by machinery, is in every way inferior in durability, but then it is only one-third of the price. But it is much better economy to pay only one-third of the price, and have a stuff which will last only one-third of the time, than to pay down three times as much capital to have a stuff to last three times as long.

179. The same consideration is applicable to agriculture, and shews the fallacy of the Ricardian Theory of Rent. Ricardo affirms that the best lands are always the first cultivated; that when lands of the second quality are brought into cultivation, then rent commences on the first, and that every increased quantity of produce is always obtained by a constantly increasing quantity of labor and expense, the latter always increasing at a much greater ratio than the former.

Any one who knows anything of agriculture, knows perfectly well that this broad assertion is a complete delusion. In an immense multitude of cases, it is perfectly possible to lay out sums of money and labor, or to expend capital on land so as to cause a very much greater proportionate increase of produce. We are very far indeed from saying that this will go on for ever. It is, in fact, an example of a *maximum*. New scientific discoveries, new manures, new methods of cultivation, may, and do, give returns greatly exceeding the increased expense, or capital. What that maximum is, we believe is very far from being discovered yet, and it is very difficult to say what it may become in the progress of agricultural science.

Thus, for instance, the discovery of deep draining produced returns far greater than the capital laid out. Agricultural improvements have been found within recent years to be the most profitable of all investments. The returns from the use of guano have greatly exceeded the proportionate expense. In fact, the progress of agricultural science has entirely overthrown the basis of the Ricardian theory of rent and Malthus's doctrine of population, even if they were not both entirely erroneous on other grounds. (RENT; POPULATION.)

180. In accordance, then, with the original meaning of the word, and the opinions of the immense majority of Economists, we adopt the view that an Economic Element is, or is not, capital according to the intention of the person who uses it, and depends upon the method of his using it, and in no way whatever upon the nature of the thing itself. We reject, however, the idea of its being the result of past human labor, as an essen-

tial element of the definition. But Capital itself is divided into species; and we may remark this, that as the fundamental conception of capital depends upon intention, and method of use, and not upon the nature of the thing itself, so a similar analogy must be maintained in the different varieties of Capital itself. They must depend upon the method of use, and not upon the nature of the thing.

When commodities are used as Capital, they are used for the purpose of profit, which is usually gained by exchanges. But this may happen in two ways.

1. The entire article may be parted with, and the whole profit made in one operation.

2. Or else the article may remain the property of the Capitalist, and he may derive a profit from its use, either by letting it out or otherwise. In this case only a portion of the profit is made in each operation.

In the first case, it is clear that the entire capital, as well as the profit, must be repaid in one operation. In the second, as most capital wears out by use, a portion of the income made at each operation goes to replace the capital, and a portion to profit.

Adam Smith says, B. II. Ch. I. "There are two different ways in which a capital may be employed so as to yield a revenue or profit to its employer.

"1st. It may be employed in raising, manufacturing, or purchasing goods and selling them again with a profit. The capital employed in this manner yields no revenue or profit to its employer, while it either remains in his possession, or continues in the same shape. The goods of the merchant yield him no revenue or profit till he sells them for money, and the money yields him as little till it is again exchanged for goods. His capital is continually going from him in one shape, and returning to him in another, and it is only by means of such circulation or successive exchanges, that it can yield him any profit. Such capitals therefore may very properly be called circulating capitals.

"2nd. It may be employed in the improvement of land, in the purchase of useful machines and instruments of trade, or in such like things as yield a revenue or profit without changing masters or circulating any further. Such capitals, therefore, may very properly be called fixed capitals."

Adam Smith, therefore, in perfect harmony with his fundamental conception of capital, makes the distinction between circulating, or floating, and fixed, capital to lie in the method of use. He says, fixed capital consists chiefly,—

"1st. Of all useful machines, and instruments of trade, which facilitate and abridge labour.

"2nd. Of all those profitable buildings, which are the means of procuring a revenue, not only to their proprietor who lets them for a rent, but to the person who possesses them, and pays that rent for them; such as shops, warehouses, work-houses, farm-houses, with all their necessary buildings, stables, granaries, &c. These are very different from mere dwelling-houses. They are a sort of instruments of trade, and may be considered in the same light.

"3rd. Of the improvements of land, of what has been profitably laid out in clearing, draining,

enclosing, manuring, and reducing it into the condition most proper for tillage and culture. An improved farm may very justly be regarded in the same light as those useful machines, which facilitate and abridge labour, and by means of which an equal circulating capital can afford a much greater revenue to its employer. An improved farm is equally advantageous, and more durable than any of those machines, frequently requiring no other repairs than the most profitable application of the farmer's capital employed in cultivating it.

"4th. Of the acquired and useful abilities of all the inhabitants or members of the society. The acquisition of such talents, by the maintenance of the acquirer during his education, study, or apprenticeship, always costs a real expense, which is a capital fixed and realised, as it were, in his person. Those talents as they make a part of his future, so do they likewise of that of the society to which he belongs. The improved dexterity of a workman may be considered in the same light as a machine or instrument of trade, which facilitates and abridges labor, and which, though it costs a certain expense, repays that expense with a profit."

This last paragraph is deserving of especial notice, because it has been almost universally supposed that Adam Smith confines Wealth to material objects. J. B. Say and Malthus both thought so. But this is seen to be a complete error, as he especially enumerates mental or intellectual abilities, and education, as part of the capital of the nation. The confusion has arisen from Adam Smith's self-contradiction. For under labor, he classes all labor as unproductive, which does not fix and realise itself in some material vendible commodity. This passage quite contradicts the one we have just quoted, and it is the one on labor, which authors have chiefly regarded. (LABOR.)

181. Circulating Capital, Adam Smith says consists of—

1st. Of the money by means of which all the other three are circulated and distributed to their proper consumers.

2nd. Of the stock of provisions, which are in the possession of the butcher, the grazier, the farmer, the corn merchant, the brewer, &c., and from the sale of which, they expect to derive a profit.

3rd. Of the materials, whether altogether rude, or more or less manufactured, of clothes, furniture and building, which are not yet made up into any of those three shapes, but which remain in the hands of the growers, the manufacturers, the mercers and drapers, the timber merchants, the carpenters and joiners, the brick-makers, &c.

4th and Last. Of the work which is made up and completed, but which is still in the hands of the merchant, or manufacturer, and not yet disposed of or distributed to the proper consumers; such as the finished work which we frequently find ready-made in the shops of the smith, the cabinet-maker, the goldsmith, the jeweller, the china-merchant, &c. The circulating capital consists in this manner of the provisions, materials, and finished work of all kinds that are in the hands of their respective dealers, and of the money that is necessary for circulating and distributing them to those who are finally to use or to consume them.

"Of these four parts, three, provisions, materials, and finished work, are, either annually, or in a longer or shorter period, regularly withdrawn from it, and placed either in the fixed capital, or in the stock reserved for immediate consumption.

"Every fixed capital is both originally derived from, and requires to be continually supported by a circulating capital. All useful machines, and instruments of trade, are originally derived from a circulating capital, which furnishes the materials of which they are made, and the maintenance of the workmen who make them. They require, too, a capital of the same kind to keep them in constant repair."

182. It is clearly to be understood that it is according to the method in which any article of Capital is used, and not according to its nature, that it receives the name of fixed or circulating. The same article may receive different names according as it passes to different owners, who produce it, or cause it to be produced for different purposes. The same article may be *floating* capital in the hands of one man, and *fixed capital* in the hands of its next possessor, if the first produces it for the purpose of selling it, and the second purchases it for the purpose of deriving an income from its use.

The distinction may also be stated thus. That if the whole price of an article is paid out of the current income of the country, it is *floating* capital; but if only the interest, or revenue derived from its use, then it is *fixed* capital. This distinction is often overlooked, and the term fixed capital is applied to articles of a certain nature. Thus houses, lands, machinery, railways, and ships are frequently termed fixed capital. But this is an error. If a person employs his capital in building houses for the purpose of selling them again immediately, they are floating capital in his hands, for their price is paid in one operation. This is by no means uncommon. But if another man buys them for the purpose of letting them out to tenants, and so only deriving a revenue for his capital, they become fixed capital in his hands. Many persons buy land on speculation, for the purpose of selling it again at a profit. The land in the hands of these jobbers is floating capital, but if another man buys that land for the purpose of letting it out to farmers, or cultivating it himself, and so only making a revenue of it, it becomes fixed capital to him. It is the same with machinery. To the machine maker, who makes it for the purpose of selling it to the manufacturer, it is floating capital. In the hands of the manufacturer, who buys it for the purpose of increasing the quantity of his productions by its use, and so only making a profit of it, it becomes fixed capital. Hence we may state generally that all articles, whatever be their nature, while they are in the hands of a person who deals in them, that is, who produces or buys them for the purpose of selling them again with a profit, as soon as he can, are floating capital. As soon as they pass into the hands of a person who only makes a profit by interest derivable from their use, they are fixed capital.

183. The articles we have just mentioned are, it is true, generally produced with the intention of their ultimately becoming fixed capital; but we have shewn that they may or they may not be fixed capital when they are produced, accord-

ing to different circumstances; and unless we know what these circumstances are, it is impossible to decide which name is to be given to them. It may also be easily shewn how articles which are usually classed as floating capital may become fixed capital. Furniture and clothes would usually be termed floating capital, because they are generally made for the purpose of being sold. But if a person made them for the purpose of only letting them out for hire, they would become fixed capital in his hands. An ordinary tailor usually makes clothes to be sold to his customers; they are therefore floating capital to him. But in the hands of a person who lets out uniforms and dresses for particular occasions, they become fixed capital, just as much fixed capital as a house or a mill. So if an upholsterer lets out furniture for hire, it becomes fixed capital as much as any railway.

We thus see how improper it is to apply the term either of floating, or fixed, capital to any object, whatever be its nature, unless we know the intention of its owner in using it. There are very few articles to which the name of fixed capital may be invariably applied—none to which it is necessarily applied. Those to which it may be applied with the least risk of error are railways, canals, docks, and agricultural improvements. The instances are very rare in which railways, &c. are made for the purpose of being sold. If that did happen, they would have to be called floating capital in the hands of such a person, or such a company. Nor are there any articles which are necessarily floating capital. The mode of expending capital which is almost invariably floating capital, is the wages of labour. In all ordinary cases in this country the wages of of labor are floating capital. But in slave countries the case is different: there a slave is fixed capital, like any machine. The same thing occurs, to a certain extent, in this country, where people sometimes enter, as it were, into a species of modified servitude. It is not unusual for eminent singers and musicians to contract to serve the large music-sellers for a definite period, during which their employer has the right to let them out for hire on occasions, like instruments or plate.

184. To the capitalist who lives merely on the profits of his capital, it may make very little difference whether he reaps that profit in one operation, or in many, as the result must always be the same to him in the end. But to the class of persons who live by their daily labor—the workmen in his business—the difference in the mode of employing capital may make a very great difference. Thus, if the builder of a ship means to sell it immediately, and be paid the whole price for it at once, he will employ that money in building another ship; and the full amount of the price of the ship, deducting the part which goes to support himself, will be expended in the wages of the shipwrights, and on the producers of the materials for the new ship. In this case it is floating capital. But if the builder of the ship changes his purpose, and only lets it out for hire, and only receives a periodical instalment for its use, he can only employ that part which represents the deterioration in building a new ship. Consequently, if he changes the nature of his business very suddenly,

that is, if he suddenly changes his floating into fixed capital, the fund applicable to the promotion of labor will be greatly diminished, and it must infallibly cause great distress among the persons who were dependent on him for their support. By seeking other employments they may, perhaps, ultimately be as well off as before; but it is quite clear, that if a large number of persons have been accustomed to have a particular kind of labor found for them, any sudden change by which the system is disorganized, must produce at least temporary distress. It might be said that the capital of the purchaser of the ship, instead of going to the builder of the ship, and being spent among that class of workmen, might be employed in encouraging other species of industry, so that the result to the whole community would be the same. But the overthrow of any system upon which a great number of people depend, must be followed by much suffering. It appears, then, that the conversion of floating into fixed capital requires to be done with much caution, and only in certain quantities at a time, to avoid its being injurious to the interests of large classes of persons. And if a large class of the public are seized with a sudden mania to convert an unusual quantity of their floating into fixed capital, it must inevitably be followed by at least temporary distress. The truth of these remarks was conspicuously verified by the universal distress throughout the country, at the time of the great railway mania in 1846, and subsequent years. The first railways were successful beyond all expectation. In a few years a complete mania for buying railway shares, and constructing new ones, seized the people. Traders withdrew their capital from their legitimate business to invest it in railway stock. They changed it from floating into fixed capital. Every one knows the consequences. The most intense distress pervaded the country for many years. The frightful sums lavished on these undertakings, has sunk their value for a long period of years; and, judging by the present value of railway stock, nearly one-third of the money invested in them has been lost for the present.

185. The distinction between floating and fixed capital, as stated above, and which entirely coincides with that propounded by Adam Smith, presents one that is clearly founded in nature, and one which is attended with important consequences. Moreover, it is in harmony with the fundamental conception of capital itself, because it is clearly founded on a difference in the method of use. Ricardo totally failed to see the true ground of the distinction, and has introduced a new one, which has been a source of much confusion. He says, p. 25,—

"In the former section, we have supposed the implements and weapons necessary to kill the deer and salmon to be equally durable, and to be the result of the same quantity of labor, and we have seen that the variations in the relative value of deer and salmon depended solely on the varying quantities of labor necessary to obtain them; but in every state of society the tools, implements, buildings, and machinery employed in different trades may be of various degrees of durability, and may require different portions of labor to produce them. The proportions, too, in which the capital that is to support labor, and the ca-

pital that is invested in tools, machinery, and buildings, may be variously combined. This difference in the degree of durability of fixed capital, and this variety in the proportions in which the two sorts of capital may be combined, introduce another cause, besides the greater or less quantity of labor necessary to produce commodities for the variations in their relative value—this cause is the rise or fall in the value of labor.

"The food and clothing consumed by the laborer, the buildings in which he works, the implements with which his labor is assisted, are all of a perishable nature. There is, however, a vast difference in the time for which these different capitals will endure: a steam-engine will last longer than a ship, a ship than the clothing of the laborer, and the clothing of the laborer longer than the food which he consumes.

"According as capital is rapidly perishable, and requires to be frequently reproduced, or is of slow consumption, it is classed under the heads of circulating or fixed capital. A brewer whose buildings and machinery are valuable and durable, is said to employ a large portion of fixed capital; on the contrary, a shoemaker whose capital is chiefly employed in payment of wages which are expended on food and clothing, commodities more perishable than buildings and machinery, is said to employ a large proportion of his capital as circulating capital.

"It is also to be observed that the circulating capital may circulate or be returned to its employer in very unequal times. The wheat bought by a farmer to sow, is comparatively a fixed capital to the wheat purchased by a baker to make into loaves. One leaves it in the ground, and can obtain no return for a year; the other can get it ground into flour, sell it as bread to his customers, and have his capital free to renew the same, or commence any other employment in a week."

The reader will at once perceive that this is a distinction of a totally different nature from that of Adam Smith. It is contrary to the fundamental conception of capital. Ricardo himself says in a note to the above passage, "A division not essential, and in which the line of demarcation cannot be accurately drawn." This last observation is perfectly true, it is utterly impossible to draw any line whatever, founded in such a principle. Articles are of all sorts and degrees of durability, and if durability be the criterion between fixed and floating capital, it is wholly impossible to tell where one shades off into the other. It is a violation of the Law of Continuity.

186. The considerations we have presented of the nature of capital entirely overthrow many of the established doctrines of capital. That is, the very same remark is applicable to them that Dr. Whately has applied to value, and the same thing must be done to them as we have already done to the definition of capital. They must be cleared of accidental circumstances. Thus, one of the received doctrines of capital is, that it necessarily wears out, and is all replaced out of income. Thus, Adam Smith says, Book II., ch. I,—

"Every fixed capital is both originally derived from, and requires to be continually supported by, a circulating capital. All useful machines and instruments of trade are originally derived from

a circulating capital, which furnishes the materials of which they are made, and the maintenance of the workmen who make them. They require, too, a capital of the same kind to keep them in constant repair."

This doctrine has been repeated in different varieties of form by nearly every Economist since Adam Smith. Thus, J. B. Say says, besides what we have already quoted in § 22, at p. 573,—

"Un tel langage, messieurs, est tout-à-fait en arrière de l'état actuel de nos connoissances économiques. Il est de l'essence des capitaux, non d'être inconsommables, mais au contraire de se consommer. Ils ne peuvent servir, qu'en se consommant sous une forme, pour reparaitre sous une autre; et même plus la consommation en est prompte, et moins long temps on en perd l'intérêt. Aussi quand on a une portion de capital en argent, cherche-t-on à la transformer le plus tôt possible en une marchandise consommable, ou en main d'œuvre, qui est aussi une denrée consommable. Tant qu'un capital reste en écus, il peut être destiné à faire des avances à la production mais il n'en fait point encore; pour devenir utile, il faut qu'on le troque contre des objets de consommation."

Now, it may be necessary here to inform our readers, that by *consumation* J. B. Say means destruction. (*CONSUMPTION*.) This is one of the fundamental errors of his system of Political Economy, which we have fully examined in its proper place. But the meaning of the above passage is, that Capital is necessarily destroyed to be reproduced. But here we have one of his inconsistencies, for he fully admits money to be a species of Capital, and yet money is in no way destroyed in performing an exchange.

Mr. J. S. Mill has also been unfortunately led to adopt the same doctrine, as one of the fundamental theorems respecting capital, p. 87,—

"A third fundamental theorem respecting Capital, closely connected with the one last discussed, is, that although saved, and the result of saving, it is nevertheless consumed. The word saving does not imply that what is saved is not consumed, but only that it is not consumed by the person who saves it. If merely laid by for future use, it is said to be hoarded; and while hoarded, is not consumed at all. But if employed as capital, it is all consumed, not indeed by the capitalist, but by his workpeople. Part is exchanged for tools or machinery, which are worn out by use: part for seed or materials, which are destroyed as such by being sown, or wrought up, and destroyed altogether by the consumption of the ultimate product. The remainder is paid in wages to productive laborers, who consume it for their daily wants, or if they in turn save any part, this also is not, generally speaking hoarded, but (through saving banks, benefit clubs, or some other channel), re-employed as capital, and consumed.

"The principle now stated is a strong example of the necessity of attention to the most elementary truths of our subject; for it is one of the most elementary of them all, and yet no one who has not bestowed some thought on the matter is habitually aware of it, and most are not willing to admit it when first stated."

187. When we come to examine the nature of capital, according to the extent of it explained in the preceding paragraphs, we shall see that this

proposition is only one of that large class to which Dr. Whately's remarks on Value are applicable. It so happens, that it is true with reference to a very large portion of capital, but as a general proposition regarding *all* capital it is utterly untenable. In the first place it is altogether inapplicable to that immense mass of incorporeal capital, in the form of shares and stock, which we have described. A man who purchases £10,000 of Bank of England Stock acquires so much fixed capital. How does that wear out? or how is it consumed? How is it consumed and reproduced? If a publisher buys the copyright of a valuable work, it is fixed capital to him, but how is it consumed and reproduced? No doubt the law at present says that it shall not last as private property more than 42 years, and then gives it to the public, just as if one were to give land to the public; but supposing copyright to be allowed to exist beyond that, and supposing the public demand to continue for the work, how can this capital be possibly be said to be consumed and reproduced? How could the income of this capital in any way whatever be applied to repair the loss or diminution of the capital? Nothing whatever could impair or increase the value of the capital, but a diminution or increase of the demand of the public. If it were not for this arbitrary law we might have a "Shakespeare estate", or a "Milton estate", or a "Gibbon estate" as permanent and enduring as the land itself. It is no doubt a very dangerous thing to prophecy about the public taste, but if there were one prophecy of the smallest degree of danger, we might we think hazard the one that the demand for Lord Macaulay's Works will last as long as the English race and language, and beyond them. We think it a perfectly safe prophecy to say that the copyright in Macaulay's works would be fixed capital to its owner, if permitted to subsist, for centuries to come. And it would be national wealth in every sense of the word, as much as any goods or commodities, and how can we possibly say that this capital is worn out or destroyed, to be reproduced? The very same remarks are applicable to the land itself. It is true that when applied to particular purposes its qualities do wear out, and require to be constantly renewed, at a considerable expense of money and labor, as when it is applied to agricultural purposes. But there are other purposes to which it may be applied, in which it is not worn out, and does not require renewal. If I possess an estate in the country and let it out, it is capital to me, and there, no doubt, the land may be said to want renewing, and the qualities of the land are absorbed and destroyed in the produce. But if I have an estate in the heart of London, which produces me an annual income, how do the qualities of that land wear out, or how are they reproduced? An acre of land there is worth very nearly £1,000,000, that is to say it produces an income to its owner equal to that of £1,000,000 invested in any other way. But how is it consumed and reproduced?

Now it so happens, it is true, that there is a very considerable portion of Capital to which that proposition may be applied, but there is also Capital to the amount of thousands of millions, to which it is wholly inapplicable, and consequently as a general or fundamental theorem, it must be entirely rejected.

188. There is another proposition which we believe was originated by Bentham, and which Mr. Mill calls fundamental, namely, that industry is limited by Capital. Now the fact is, that this proposition has no definite meaning at all, until we settle what Capital is. In the terms in which Bentham meant it, it is undoubtedly a complete fallacy; for he had no notion of Capital, except material products. And, in fact, the disquisition on the proposition is so mixed up with the meaning of production, from the interpretation of which as used by a considerable number of Economists we so entirely dissent, that it would be too long to discuss the matter here. (PRODUCTION.)

But we must stop to point out one great fallacy of J. B. Say's, whose notions of Credit we have examined elsewhere. (CREDIT.) He says, Vol. I., p. 137,—

“La nature des capitaux, la nature de leurs fonctions, nous découvrent des vérités assez importantes. L'une d'elles est que les capitaux productifs ne consistent point en valeurs fictives, et de convention, mais seulement en valeurs réelles, et intrinsèques, que leurs possesseurs jugent à propos de consacrer à la production. En effet, on ne peut acheter des services productifs qu'avec des objets matériels ayant une valeur intrinsèque; on ne peut amasser en capitaux et transmettre à une personne, que des valeurs incorporées dans des objets matériels.”

What? Will not a bank note (which he calls a fictitious value) purchase productive services of all sorts as well as money? Is it not absolutely certain that instruments of credit perform exactly the same function in circulation that money does?

We have shewn already the great error of calling instruments of credit fictitious values. They are real values, but future. We have moreover shown from Say himself, that he has contradicted himself in saying that nothing but values incorporated in material objects, can be amassed and transferred.

189. We have observed that, if the owner of an article disposes of its use for ever, or sells it, the price should be sufficient to replace the article, together with the profits. When he only lets it, the rent, or hire, is composed of one part for the deterioration of the article, and the other for the necessary profits. From this it follows, that the more permanent the article is, the lower will be the rent, or hire, compared to the price, because, assuming the profits to be the same, the deterioration is less during any given time. If it be of a perishable nature, the hire will be high compared with the price, because the deterioration will be great. A few cases will verify this remark. The rent of land is very low compared with the price, usually not more than 3 or 4 per cent., because the deterioration is very small. The rent of houses is much greater compared to their price, usually 8 or 9 per cent, because the deterioration is greater. The hire of furniture is considerably more, usually 15 or 20 per cent., because the deterioration is greater still, and so on, so that the hire must always be greater as the deterioration increases. From this it follows that the hire must always be greater as the deterioration increases.

190. From the observations in the preceding paragraphs we obtain as the fundamental conception of Political Economy that,—

DEMAND IS THE ONLY SOURCE OF VALUE.

We may have things of Value upon which no labor has been bestowed, and we may have things upon which immense labor has been bestowed, and yet have no value.—

Therefore LABOR is not the ESSENCE but the ACCIDENT of VALUE.

We may have things of Value of all degrees of durability, from perpetuity down to those which perish in the using; also we may have things of all degrees of durability from perpetuity downwards, which have no value.—

Therefore DURABILITY is not the ESSENCE, but the ACCIDENT of VALUE.

We have shewn that there is property of gigantic magnitude which is wholly incorporeal, or immaterial, which is of enormous Value; also there are abundance of things which are material, which have no value.—

Therefore MATERIALITY is not the ESSENCE, but the ACCIDENT of VALUE.

Hence neither labor, durability, nor materiality is separately the essence of Value, they are only the accidents of Value, nor is any combination of them necessary to Value.

But on the other hand whatever men desire, or want, has value, whatever they do not desire, or want, has no value. Whenever human desire is shed on any object it has value, when human desire passes away from it, it ceases to have value.

Thus demand is the only source of value, and the measure of value is what men will give to obtain what they want.

191. Speaking strictly, anything is a measure of value, which has the capacity of being exchanged. In former times when barter prevailed, and commodities were exchanged directly, each of course was the measure of the other.

In modern times, however, since the introduction of money, money has been usually considered as the measure of value. And, therefore, it has been said by Aristotle, that demand is the origin of value, and money is the measure of value.

But though the introduction of money produces great advantages in commerce, and is found to have great convenience, yet it in no way alters the nature of the thing. And though it is usual to speak of money as the measure of the value of commodities and services, yet commodities and services are equally the measure of the value of money.

If one man is willing to give another 50s. for a quarter of wheat, that 50s. measures the value of the wheat to him. If the other is willing to give a quarter of wheat for the 50s., that quarter of wheat measures the value of the 50s. to him.

Thus value springs from the reciprocal wants of men. Nothing can have value independently *per se*. The value of my produce consists in this, that some one else will give me something for it; the value of that other person's produce consists in this, that I will give him something for it. If each of us have things which the other does not want, those things have no value. Or if one has things which the other wants, but the other has no things which the first wants, there can still be no exchange, and consequently no value. Hence we see that *Value indispensably*

requires the concurrence of two minds. As Mr. Samuel Bailey says, (BAILEY,) Value is like distance, it denotes an external relation between two objects. It is also like weight, which denotes the force of attraction between two objects. To suppose that an isolated object can have value, is as absurd as to suppose that an isolated object can have distance, or that an isolated body can have weight.

192. Hence we observe that in order that any object should have value we must bestow our labor upon something some one else wants, and all labor bestowed upon anything which no one wants, is labor thrown away and lost.

Hence in order to make labor profitable, we must observe what things are wanted, or what things have value, and bestow our labor on them.

Therefore it is perfectly clear that, *It is not Labor which is the cause of Value, but it is Value that attracts Labor.*

193. There are many things we want that we must labor for ourselves; a man will often produce himself what he requires. In such cases we do not consider whether the labor is worth the produce, because we should only be too glad to obtain the produce without the labor, but we consider whether the produce, or enjoyment, is worth the labor, or trouble.

If a man were told that by making a long journey he would see something very remarkable, and if believing this, he incurred a great expense and trouble, and found nothing worth seeing, he would say that he had lost his pains and money; he would never suppose that the worth of what he saw depended upon the trouble and expense of his journey. On the contrary, he would consider whether the worth of what he saw, recompensed him for the trouble and expense of the journey.

A man in London, hearing of the beauty of the ruins in Upper Egypt, goes to a great expense and trouble to go to see them. Does the beauty of the ruins in Upper Egypt depend on the length and expense of the journey? Is it not plain that our traveller bestows great expense and trouble in going to Upper Egypt, because he thinks the beauty of the ruins worth the expense and trouble? He would only be too glad if some kind fairy would whisk him from London to Thebes in the twinkling of an eye.

Hence, universally, it is not the *labor which gives value to the product*, but the *product which gives value to the labor*.

194. Hence we see that Value resides altogether in the mind. We must entirely expel all notions of Labor, Materiality, or Durability from the definition of Value. Whatever men desire, and will give anything for, is an Economical Element, no matter whether it is material, or immaterial, whether it lasts for ever, or only for a second. And this for no other reason whatever than because men think them equal, and will give the same quantity of things to obtain them.

Exactly in the same way we may have a pound weight of air, a pound weight of lead, of water, of iron, of cheese, of bread, of butter, of milk, of wine, of clay, of wood, of sugar, of gunpowder. Does their materiality, or their durability, or the labor in producing them influence their weight? Certainly not. Why are they all of equal weight? For the very simple reason—that they all weigh a pound!

It is just the same with Economical Elements. Whatever may be exchanged for a pound, is an Economical Element, whether it be material or immaterial, durable or perishable, and these elements are all equal in value, and why? For the very simple reason—that they are all equal in value to a pound!

195. We hope that we have satisfied our readers that labor, materiality, and durability, must all be dismissed from the conception of Value. There is one thing more specious still, which has been advocated by very able Economists, as the source of Value—namely, Utility. Thus, J. B. Say makes Utility the basis of Value; and Mr. Senior says, p. 13, "We use the word *VALUE* in its popular acceptation, as signifying *that quality in anything which fits it to be given and received in exchange*; or, in other words, to be lent or sold, hired or purchased.

"So defined, Value denotes a relation reciprocally existing between two objects, and the precise relation which it denotes is the quantity of the one which can be obtained in exchange for a given quantity of the other. It is impossible therefore to predicate value of any object without referring expressly, or tacitly, to some other objects in which its value is to be estimated; or, in other words, of which a certain quantity can be obtained in exchange for a certain quantity of the object in question."

196. Now, in fact, Utility is a much more specious basis of value than either labor, materiality, or durability, and therefore we have reserved it for separate discussion. But when we examine the matter, we shall find that Utility cannot be made the basis of Political Economy, because utility itself is, we may say, the result of a certain state of mind. Dugald Stewart has some very pertinent remarks on this subject, (*First preliminary dissertation to the Encyclopædia Britannica*, p. 66. *Eighth edition*.)

"To this reference of the sensation of colour to the external object, I can think of nothing so analogous as the feelings we experience in surveying a library of books. We speak of the volumes piled up on its shelves as *treasures* or *magazines* of the knowledge of past ages; and contemplate them with gratitude and reverence, as *inexhaustible sources* of instruction and delight to the mind. Even in looking at a page of print or of manuscript, we are apt to say that the ideas we acquire are received by the sense of sight, and we are scarcely conscious of a metaphor when we employ this language. On such occasions we seldom recollect that nothing is experienced by the eye but a multitude of *black strokes drawn upon white paper*, and that it is our own acquired habits which communicate to these *strokes* the whole of that significance, whereby they are distinguished from the unmeaning scrawling of an infant, or a changeling. The knowledge which we conceive to be preserved in books like the fragrance of a rose, or the gilding of the clouds depends for its existence on the *RELATION between the OBJECT and the PERCEPT MIND*; and the only difference between the two cases is, that in the one, this relation is the local and temporary effect of conventional habits; in the other it is the universal and the unchangeable work of nature. The art of printing, it is to be hoped, will in future render the

former relation as well as the latter coeval with our species; but in the past history of mankind, it is impossible to say how often it may have been dissolved. What vestiges can now be traced of those scientific attainments which, in early times, drew to *Egypt*, from every part of the civilized world, all those who were anxious to be initiated into the mysteries of Philosophy? The symbols which still remain in that celebrated country inscribed as eternal monuments, have long lost the correspondent MINDS, which reflected upon them their own intellectual attributes. To us they are useless and silent, and serve only to attest the existence of arts, of which it is impossible to unriddle the nature and the objects.

"—— Variis nunc sculpta figuris
Marmora trunca tamen visuntur, mutaque nobis;
Signa repertorum tuimur, occidere reperta."

"What has now been remarked with respect to *written characters*, may be extended very nearly to *oral language*. When we listen to the discourse of a public speaker, eloquence and persuasion seem to issue from his lips, and we are little aware, that we ourselves infuse the soul into every word that he utters. The case is exactly the same when we enjoy the conversation of a friend. We ascribe the charm entirely to his voice and accents; but without our co-operation its potency would vanish. How very small the comparative proportion is, which in such cases, the words spoken contribute to the intellectual and moral effect, I have elsewhere endeavoured to shew."

197. These remarks apply very strongly to the word *Utility*. If we admit utility as the basis of Value, we in fact open up the whole of mental and moral science. Whether an object has utility, depends entirely upon the habits of feeling, and the *percipient mind* of the person with whom it is brought into relation. If utility is the basis of Value, unfortunately it is not confined to things which are productive of benefit. The depraved taste and reckless character of too large a portion of mankind confer a value upon things of the most mischievous and noxious nature. The unhappy passion for intoxicating liquors among our lower classes confers enormous value on gin, as an Economical quantity, which is to the last degree injurious. But so long as that desire continues, gin will continue to be an article of wealth. However much the moralist may deplore it, the Economist must consider gin as much an article of wealth as the most beneficial product. It is for the moralist to bring about the change of mind in the people, so as to make them cease to desire these things; until he does so, it is the melancholy duty of the Economist to acknowledge them to be Capital so long as they are desired.

198. As allied to this we may take the masses of low and licentious literature which formerly abounded. While there was a demand for it, the Economist could not help acknowledging it to be Capital. But certainly it would be an abuse of the term *Utility*, to apply it to such masses of abomination. It is for the moralist to eradicate the morbid craving for it, and cause it to cease to be capital.

199. And the same remarks apply to other things which are indifferent. While things remain in all respects the same in themselves, the fashion, or desire for them changes. Things rise

and fall in value, without undergoing any change in themselves—the change is in the *mind* of the public. When we say that the pictures of one master, like Sir Thomas Lawrence, are falling, and those of another, like Sir Joshua Reynolds, are rising in public estimation, is it the pictures themselves which change? Certainly not; they remain in all respects the same. *It is the public mind which undergoes a change.* It is according to the state of the percipient mind that value is shed upon, or dies off from any object. So Tennyson says,—

"A happy lover who has come
To look on her that loves him well,
Who 'lights, and rings the gateway bell,
And learns her gone and far from home;

"He saddens, *all the magic light
Dies off at once from bower and hall,
And all the place is dark, and all
The chambers emptied of delight.*"

200. These remarks admit of universal application. And hence we see that there is no such thing at all as absolute utility, which can be made the basis of Value. To make utility the basis of Value would, in fact, let in the whole of Psychology into Political Economy, which is the very thing we are so careful to exclude. It would be an error in the mental or subjective department of the subject of a similar nature to what it would be in the external, or objective department, to admit the whole process of manufactures and agriculture.

Political Economy rigorously excludes all considerations of the preparation and cultivation of the mind which produces the desire, equally with all considerations of the preparation or cultivation, or manufacture of the product. It only deals with the desire which is the cause of Value, and the product which is the subject matter of Value.

201. We have fully discussed the objections to making *Utility* the basis of Value in the *PRELIMINARY DISCOURSE*, and we need not repeat here what we have said there. We will only remark, that what we have just said is in entire harmony with Mr. Senior's opinion, which we have already quoted, § 28. We have shewn there how clearly he has seen that the true cause of Wealth resides in the mind. In order to give value to material, or any other products, it is first necessary to prepare and cultivate the mind; to create new wants and desires. If these are totally wanting in the mind, vain and unprofitable is the toil of the laborer. It is only by creating new desires that new species of capital can be created. Heavy taxes, of course, can only be borne by an industrious and wealthy people, and no people can be wealthy who are not inspired with strong and various desires. Hence we may see, in a purely economical point of view, the enormous importance of an educated and enlightened people. The multiplication of wants multiplies industry, multiplies capital, multiplies incomes, multiplies the persons to bear the burden of taxation, and renders the nation capable of great achievements, and of taking a leading position among the nations of the world. It is the constantly increasing intelligence and industry and education of the English people that makes the interest to be paid for the national debt a constantly diminishing burden. If the people were suddenly to sink to the apathy and

indolence of the Neapolitans, or Spaniards, it would soon become a burden so intolerable, as to invite the operation of the sponge.

202. Upon the principle, too, that demand is the origin of Value, and that the quantity of money, (or anything) which people will give for a thing is the measure of its value, we are enabled to understand clearly the existence of incorporeal capital, just as much as corporeal capital. If any product has value, the source or Capital, from which it springs, has a real Value. It is nothing but the demand for the products of the land which sheds a value on the land. The deserts of Africa are of no value in an economical point of view. They cannot be made the subject of taxation. On the other hand the great incorporeal estates of the law, medicine, engineering, and all trades and professions, are as really existing quantities as land, and can be made just as easily the subjects of taxation. These considerations have much importance in respect to the Theory of the Income Tax. (INCOME TAX.)

203. These considerations shew that the essential preliminary to the increase of Capital in a nation is the increase of the wants and desires, either corporeal or mental. This being premised we observe that Capital is an increasing quantity, and we may consider the modes in which it does increase.

There are two fundamentally distinct ways in which Capital may increase;—

I. By a direct and actual increase of the thing itself.

II. By exchange; that is by exchanging any thing which has a low value in any particular place for one that has a higher value.

The first of these methods has always been understood and lauded from the time when Political Economy began to be studied. Aristotle especially commends all the arts which tend to increase the quantity of things, such as agriculture, hunting &c. And this has been so often described that we need not further dwell on it. The Physiocrate School allowed the epithet of productive alone to such labor as increased the actual quantity of matter. They allowed that the labor of artisans &c. added to Value, but that it did not produce Value. (PHYSIOCRATES). A somewhat nice distinction. Adam Smith however justly held that adding to Value was in reality producing Value, and included manufacturing industry under the title of productive. And this is unquestionably true, and has been adopted by every Economist since.

The second method of increasing capital by exchange, has had a very different reception from the first. In fact until very recent times indeed, comparatively speaking it has been an insoluble puzzle. Aristotle, Cicero, and Luther all repudiated the idea that profit was to be made by exchanging. Luther was furious at the idea that any one could gain by exchange unless he robbed the other party. However, plain experience was against the doctrine. A new one then sprung up more absurd still, and has Montaigne for its sponsor. It was then held that in exchange one side only gained, and the other lost as much. This was the accepted notion for a long time, and gave rise to the unfortunate Theory of the Balance of Trade, and was the parent of innumerable

wars, and fills many a dreary page in the annals of mankind.

204. Nevertheless the slightest reflection on the reality, ought have wakened men to doubt this. If one side always lost in an exchange, why were not the majority of traders in the bankruptcy court? If some men were always gaining, and some always losing, why were not half the nation insolvent?

205. Boisguillebert was the first, that we know of, to proclaim the manifest truth, that in commerce both sides must gain. His writings, however, attracted very little attention, and were almost forgotten till very recently.

The truth of this maxim could not but force its way on any one who would look abroad on commercial society. No doubt there is always a certain per-centage of unfortunate traders. But are even a large proportion of traders insolvent? Clearly not. It is quite possible that all might gain, all might be prosperous. Loss is not the essence but the accident of trade.

206. It is perfectly clear, therefore, that profits may be made by exchanging. The slightest attention to facts shewed the utter futility of the brainspun doctrine of philosophers. Now we observe, that what was usually called productive labor, increased value by adding to the actual quantity of things, then manufacturing industry increases value, by making anything more desirable than it was before, putting it into a more useful shape, &c. These are both now called productive labor by all Economists. But commercial industry, or the industry of exchange, increases value by substituting a more valuable article in the stead of one that is less valuable. It takes away from any given locality something that is abundant there, and takes it to a place where it is scarcer and more valuable, and seeks to bring back some article which is abundant and cheap in that locality, and is more scarce and valuable in the locality from which the operation began.

207. The least reflection will shew that this is as truly productive labor as the other two cases. Each of these three kinds of labor augments the sum of articles of value in any given place, and therefore each of these three species of industry augments capital. What we say is this, that if we take away an article worth £10 from any given place, and substitute in its stead some other article worth £20 in the same place, that operation augments capital. And it is quite clear that the difference by which the imported article exceeds the value of the exported article, is the measure of the increase or profit. This is the function of commerce.

208. This doctrine is so plain that it cannot, we think, be disputed. We shall now shew how beautifully it harmonizes with the fundamental doctrine of Value, propounded by Aristotle.

If value be considered to be anything residing in the article itself, it is perfectly manifest that value cannot alter so long as that quality remains unchanged. It has accordingly been objected, says Mr. Senior, that if the definition of Value be what anything will exchange for, and Wealth a general name for the things which have value, that, "the same thing will be wealth to one person and not to another. This consequence is evident; and it is evident that even to the same

person the same quality may be wealth under some circumstances, and not so under others. The knowledge of English law is profitable in England, and that of French law in France; if an English lawyer, with no other property but his knowledge were to settle in France, or a French lawyer in England, he would find himself instantly reduced from affluence to poverty. The power of telling long stories is a source of profit in Asia, but valueless in Europe. According to our nomenclature, therefore, it would be wealth in Persia, and cease to be so in England. If an actress should embrace a religious sect, of which the tenets should be incompatible with the stage, her vocal and dramatic talents would no longer be exchangeable; she would no longer be able to let them out by the evening. We should say, therefore, that they had ceased to be a part of her wealth.

"Again, Colonel Torrens supposes a solitary family, or a nation, in which each person should consume only his own productions, or one in which there should be a community of goods; and urges as a *reductio ad absurdum*, that in these cases, though there might be an abundance of commodities, as there would be no exchanges, there would, in our sense of the term, be no wealth. The answer is, that for the purposes of Political Economy there would be no wealth; for, in fact, in such a state of things, supposing it possible, the science of Political Economy would have no application. In such a state of society, Agriculture, Mechanics, or any other of the Arts, which are subservient to the production of the commodities, which are with us the subjects of exchange, might be studied, but the science of Political Economy would not exist. We may add, that if the common usage which identifies wealth with the things which have value is a convenient one in all the forms which human nature really exhibits, it is no objection to it that it would not be convenient in a state of society of which we have no experience."

209. This passage of Mr. Senior's deserves the most attentive consideration as touching the very foundation of Political Economy. His reply to Colonel Torrens is perfectly conclusive. It is the very fundamental notion of Value to understand that it is purely conventional and local. The very same thing may have enormous value, may be great wealth in one place, and have no value at all, and be not wealth in another. We may also say, that since the foundation of Political Economy in modern times by the Physiocrats, the words "wealth" and "riches" have been used exclusively as technical words to signify not productions, or commodities, in general, but those things only which, in a state of society which admits the right of private property and exchanges, have exchangeable power. It is just the same with the word "property." In a state of society which permitted no such thing as private property, there could manifestly be no such thing as property. There might be abundance of eatables and drinkables, and all sorts of other things. But if no one was allowed to have an individual and exclusive right in these things, there could of course be no "property." Property, therefore, is a technical word arising out of a particular state of society. It is exactly the same with "wealth" and "riches." They are technical words arising

out of that state of society which permits individual and exclusive "property" in things, and an *exchange* of those things. And those words have been used by the earliest Economists, with the distinct announcement that they refer exclusively to exchangeable things. Thus Baudeau says (*Introduction à la philosophie économique; Physiocrates, Édité. Guillaumin, Vol. II. p. 661*),—

"*Des Richesses.* Les objets propres à nos jouissances utiles ou agréables sont appelés des *biens*, parce qu'ils procurent la conservation, la propagation, le bien-être de l'espèce humaine sur la terre.

"Mais quelquefois ces biens ne sont pas des *richesses*, parce qu'on ne peut pas les échanger contre d'autres biens, ou s'en servir pour se procurer d'autres jouissances. Un beau temps, une bonne santé, une belle âme, sont des biens sans être des richesses. Les productions de la nature, ou les ouvrages de l'art les plus nécessaires et les plus agréables cessent d'être richesses quand vous perdez la possibilité de les échanger, et de vous procurer par cet échange d'autres jouissances. Cent mille pieds des plus beaux chênes de l'univers ne vous formeraient point une *richesse* dans l'intérieur de l'Amérique Septentrionale, où vous ne trouveriez point à vous en défaire par un échange.

"Le titre de richesses suppose donc deux choses: premièrement, les qualités usuelles, qui rendent les objets propres à nos jouissances, utiles ou agréables, et qui les constituent des *biens*; secondement, la possibilité de les échanger, qui fait que ces biens peuvent vous en procurer d'autres, ce qui les constitue *richesses*.

"Cette possibilité de l'échange suppose qu'il existe d'autres biens contre lesquels on peut les échanger.

Thus we see that the word "riches" or "wealth" was exclusively used in a technical sense by the founders of Political Economy, to signify things which could be exchanged.

Now, as according to the conception of Value which we adopt, it resides entirely in the mind, and is measured by the quantity of anything, such as money, which people will give for the object desired, it follows that that object whatever it is, for which people will give more to obtain than another object, is the more valuable of the two. It is an object of greater wealth. The one is more riches than the other. And if there are two places, in one of which the very same object will exchange for more than at another place, it is manifestly an object of greater value in the first place, than in the second.

Now from this fundamental notion of Value, this proposition follows, which may appear a paradox at first, but yet it is perfectly simple. *That by a mere change of position of all the articles in the world, those very articles remaining exactly the same both in quality and quantity, it would be possible to annihilate all the wealth in the world.*

The proposition, paradoxical as it may appear, manifestly follows, by the Law of Continuity, from the considerations we have just mentioned. Because, if it be possible by a mere change of position to make the very same article of greater value in one place than in another, we have only to reverse the process and move the article from where it has greater value to where it has less, and it is quite easy to find a place where it shall

have no value at all, and cease to be wealth. Place it simply among people who don't want it, and it ceases to be wealth.

Take for instance all the literary treasures of civilized Europe. They are undoubtedly wealth in Europe, because people desire them strongly, and will give much to obtain them. Place them among the Hottentots, or the Esquimaux, and they would be no more valuable than the sand of the sea. They would cease to be wealth.

Do the same with everything that civilized men consider most valuable, diamonds and precious stones, and gold. Place them among the Bosjesmans, and they would cease to be wealth.

Do the same with what is most highly valued among the Esquimaux. A tureen full of train oil or whale blubber, would be a delicious feast to an Esquimaux, he would give much to possess it; it would be wealth there. Place the very same thing on table at the Lord Mayor's dinner, and would it be equally esteemed? Would it be wealth there? We trow not.

Now these remarks may be applied to every single article in succession, and they shew the truth of that fundamental conception in Political Economy, that all value is conventional and local. There is no such thing as *intrinsic value*. An article may have value through a greater or smaller area, its value may be more or less general; but it cannot be *intrinsic*, for the very good reason, that it requires the *percipient mind* of a person to exist at all.

210. It appears then to us to be perfectly clear, that, as the general conception of productive labor is, that it is labor which produces something of value, or which is exchangeable, i.e., which has the power of *DRAWING FORN* something in exchange; commercial industry, whose peculiar function it is to substitute an article of greater value in any given place for one of lesser value, is as truly *productive labor*, as that which is bestowed on increasing the actual quantity of things, or in changing the qualities, or shape of existing things, so that they shall be of greater value. All these three species of industry are merely varieties of one fundamental conception, augmentation of value.

211. We thus see that Capital may be profitably, or productively, employed in three distinct ways—1st, by adding to quantity; 2dly, by adding to the value of existing quantity; and, 3dly, by substituting things of more value for things of less value, i.e., by exchange. And as the profit in each case may be added to the principal, and also increase, it is manifest that it has the capacity of increasing in each way in a geometrical ratio.

Although all capital, however, has this capacity, it very seldom indeed does so in any case whatever. The standard case of such an increase is where a man invests his money in the funds, and constantly capitalises the dividends, without using them. In that case the capital remains untouched, and is not destroyed, consequently at any time after being left to increase, there would be both the capital and the interest. But such a case as this very seldom occurs, because people usually require the interest of their capital to live upon, and thus it is not devoted to the purpose of increase.

212. Now the rate of increase of Capital ma-

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nifestly depends upon the Rate of Profit. But what is *Rate of Profit*?

By a most extraordinary oversight, Economists have used the expression, rate of profit, in a sense which is most clearly erroneous. When we speak of rate of interest, it is perfectly clear that we measure rate, both by the actual amount of the sum paid, and the *time* it is paid for. When we say that the rate of interest is 5 per cent., we always mean 5 per cent. for the year. If a man were to say that he had borrowed £100, and had agreed to pay £5 for its use, we of course could form no conception of what rate of interest that was, until we knew how long he was to have the use of the money.

213. Now it is perfectly clear that the very same considerations apply to *Rate of Profit*. If a man tells us that he has got a return of £5 on his capital of £100, how can we possibly tell what *rate of profit* that is, unless he also tell us in what *time* he made that profit.

This remark seems self-evident, and yet the expression, *Rate of Profit*, is used by Economists to mean simply the proportion of the profit to the capital. This is clearly the sense it is used in by Adam Smith. It is the sense on which the whole of Ricardo's theory of Profits is based, and it is the sense adopted by all his school. Thus, Mr. McCulloch says, Note VII., to the *Wealth of Nations*,—

"By *profit*, in Political Economy, is meant that part of the produce, or the value of the produce, obtained by the employment of capital in industrious undertakings, which remains to its employers, after replacing the Capital, or such portion of it as may have been wasted in the undertakings, and every other expense necessarily incurred in carrying them on.

"The *rate of profit* is the proportion which the amount of profit derived from an undertaking, bears to the capital employed in it."

It would be just as sensible to define *rate of interest* to be the proportion which the interest bears to the capital.

Now from this definition of rate of profit, Ricardo deduced the doctrine that the rate of profit depends upon the rate of wages. Ricardo's doctrine is, that as wages rise, profits fall, and as wages fall, profits rise.

Mr. McCulloch however, though adopting Ricardo's definition of rate of profit, says, that profits may rise together with wages by increasing the productiveness of industry. And he says,

"It is obvious that the rate of profit may be raised in three, but only in three ways,—viz. (1) By industry becoming more productive; or (2) by a reduction in the rate of wages; or (3) by a reduction in the amount of taxation: and it may be reduced by the opposite circumstances; or (1) by industry becoming less productive; or (2) by a rise in the rate of wages; or (3) by a rise in the amount of taxation. Profit cannot be affected in any way not referable to one or other of these heads."

And so Mr. Mill says, *Vol. I. p. 510*—

"The cost of labor then, is in the language of mathematics a function of three variables; the efficiency of labor; the wages of labor (meaning thereby the real reward of the laborer); and the greater or less cost at which the articles composing that real reward can be produced or pur-

chased. It is plain that the cost of labor to the capitalist must be influenced by each of these three circumstances, and cannot be effected by any others. These, therefore, are also the circumstances which determine the rate of profit; and it cannot be in any way affected except through one or other of them. If labor generally became more efficient, without being more highly rewarded; if without its becoming less efficient, its remuneration fell, no increase taking place in the cost of the articles composing that remuneration; or if these articles became less costly, without the laborer's obtaining more of them; in any one of these three cases profits would rise. If, on the contrary, labor became less efficient (as it might do from diminished bodily vigor in the people, or from deteriorated education); or if the laborer obtained a higher remuneration, without any increased cheapness in the things composing it; or if without his obtaining more, that which he did obtain became more costly; profits, in all these cases, would suffer a diminution. And there is no other combination of circumstances in which the general rate of profit of a country, in all employments indifferently, can either fall or rise."

214. Now, there is one consideration which is omitted by both of the authors last cited, which has the very greatest effect on the rate of profit namely, the time in which it is effected. It is quite easy to see that the rate of profit may be very great, when the actual profit is very small, and the rate of profit very small, when the actual profit is very large.

If a trader made 50 per cent. profit on one transaction, that would be a high actual profit. But if he only made one transaction in the year, his rate of profit would be 50 per cent. per annum. But suppose he makes only 5 per cent. profit on any one transaction, but makes a transaction every day, it is clear that he would make 1,565 per cent. per annum, there being 313 working days in the year. This would be supposing he did not capitalise the profit. If he did that, of course they would increase at a very much faster rate. Hence it is perfectly clear, that it is infinitely to the trader's advantage to make a number of *small profits with great rapidity*, than a few large profits slowly.

215. Our readers can exercise their ingenuity in ascertaining the different rates of profit per annum, according to the different actual profits, and the speed they are made at. But these considerations shew that small and quick profits conduce much faster to opulence than slow and large ones. A profit of 5 per cent. made in one day, is three times a faster rate of profit than 50 per cent. made in one month. Thus we see the enormous importance in a national point of view of encouraging the multiplicity of exchanges. When a trader has bought goods, and sold them again, it is called to *turn-over* his capital. We may call it the *revolution* of capital.

Now money and credit are called the *CIRCULATING MEDIUM* (*CURRENCY*; *CIRCULATING MEDIUM*) because they facilitate this buying and selling of goods, &c. They are the great instruments of this circulation. And it is this motion, or circulation of them, that generates wealth, and the rapidity of that circulation which indicates the rate of increase or progress. This considera-

tion will enable us to solve a question long debated by Economists and Statesmen,—Which employment conduces most to national opulence? From the time of Colbert to the French Revolution, the question whether the towns or the country most conduced to national opulence was keenly disputed, and according as one side or the other prevailed, the one was encouraged and cockered, and the other depressed. Now as the velocity of the revolution of capital indicates the rate of progress, it is quite easy to see whatever employment most increases the speed of this revolution, most augments national opulence. Now of all species of industry, it is well known that agriculture causes the most languid circulation of the currency. A farmer turns over his capital but once in the year. By offering an extra stimulus of reward, the productions of human industry can be multiplied and quickened to an extraordinary extent, but the process of nature is slow and cannot be accelerated at command. Different trading pursuits causes a brisker circulation in different degrees—all much faster than agriculture. Hence a purely agricultural country must increase slower in opulence than any other, and other countries very much in the proportion of their inhabitants engaged in agriculture as compared to other pursuits. Experience amply verifies this remark. It is always manufacturing and trading countries which increase fastest in opulence. Poland and other countries which have few resources but agriculture, are the poorest and most barbarous in Europe. Great Britain and Holland, in which the smallest proportion of the inhabitants are engaged in raising food for the rest, are the wealthiest, and other countries very much in similar proportions. The fortunes made in our manufacturing and commercial districts are colossal. Who ever heard of a man making a great fortune by agriculture? But there is scarcely probably a small country town where some industrious and energetic individuals have not made a fortune by trading.

216. These considerations throw some light, we think, on a question which has been much debated among Economists, the advantages of peasant proprietorship, or *la grande* and *la petite culture*. It is well known that a considerable number of eminent writers and Economists have always strongly advocated the system of small properties in land. There is no doubt that in many parts of Europe the industry bestowed by the proprietors of small farms excites the warmest admiration. Who can see the terraced hills of Tuscany clothed with vines, without admiring the laborious industry which has converted these apparently sterile mountains into sources of wealth. This question has been so well discussed, we think, by Mr. John Hill Burton, in his *Political and Social Economy*, that we shall lay before our readers his arguments, which appear to us to be quite conclusive, and are in complete harmony with the doctrine advocated in the preceding paragraphs. He says p. 190—

"When Sismondi looked around him to the comfort and happiness of his fellow countrymen of Switzerland, each man sitting under his own vine and his own fig tree, he saw likewise around him, a body of petty proprietors, and he appealed to the world in favor of small holdings as a substantial element of happiness. He addressed

himself particularly to the British nation; and as the happiness of mankind should be the great aim of legislation, he called upon our senators to abandon a system that piled up and protected wealth, for one that would aid the people in the acquisition of happiness. He desired them above all things to abandon those employments and transactions, and proprietary rights which produced manufactures, large farms, and great inequalities of fortune, and to model our system according to those pristine usages, which alike avoid great poverty and great wealth. Without adopting all these views, which would simply be applying the paternal and corrective system of a small Swiss canton to a vast empire, many able writers have followed Sismondi in his partiality for peasant proprietors, and they now count on their side the powerful pen of Mr. Mill. * * *

"One of the great arguments in favor of peasant proprietorship, is the great amount of labor it calls into existence. Mr. Young, who is an opponent of the system, is often cited as making a concession in its favor, when he says that 'the magic of property turns sand into gold.' 'Give a man, we are told, the secure possession of a bleak rock and he will turn it into a garden—give him a nine year's lease of a garden, and he will convert it into a desert.' What is most conspicuous through all the authorities which Mr. Mill and others have brought together in favor of peasant proprietors, is the intensity with which they labor the ground. They pluck every weed, remove every stone, pulverize every clod, irrigate, trench, and drain with unwearied industry. In some of the flat valleys of Switzerland, the avidity with which every inch of level land is applied to productive purposes is sometimes troublesome to the pedestrian, who cannot cross the country without the risk of treading on some valuable plant, and of feeling as if he were trespassing in a garden. * * *

"It cannot fail to be remarked that the great boasted peculiarity of peasant proprietorship, even in the accounts furnished by its admirers and supporters, is that it is a stimulus to labor. This is in itself a valuable quality of any social state, but it is also a necessary qualification of real labor that it be directed to a profitable purpose; and labor will be rendered valuable in itself, not by the time it occupies, or the apparent difficulties with which it combats, but by the extent to which it performs any services of which the community desires performance. The hardest endurance on the treadmill is not in this sense labor; and the hardest exertions to make the surface of a rock yield grain while there is tillable ground, or any other productive means of employing the labor remaining neglected beside it, are not acceptable or commendable service. If we find in small isolated communities men thus laboring hard and acquiring all the moral discipline that follows continued exertion—even if we should respect such a phenomenon when it happens to be exhibited, we cannot expect large and intelligent communities will imitate the example, and waste their labor.

"If we appeal to the working classes in this country—and it is only by appealing to them, that they can be prevailed on to adopt any change of habit on such matters as labor and occupancy—we do not hold out any very inviting prospect,

when we recommend them to save money to be invested in land, in order that when they possess it, they may be induced and impelled to work so much the harder. Such an appeal would be simply calling on the working classes to place their earnings in a bad investment; and they would only be following the example of the educated and richer classes, if they avoided it, for those classes do not generally invest in land merely because it is land, unless the investment be otherwise beneficial. It will not be felt as a sensible improvement to the workman's condition, that he is called a landlord, even if he should obtain the privilege for nothing, if he has still to labor as much as he previously labored, and must fare worse; nor would any discreet adviser recommend him to take advantage of the opportunity so to raise his condition should it be offered to him. If the possession of a small holding, upon the mere condition of working it, would not be an advantageous speculation for the working man of this country, still less would it be so, if he had to pay a rent for it as a tenant, or had to pay what is the same as rent—interest for money secured on the land, and paid either to the person from whom he has nominally bought it, but to whom is still due the purchase money, or to a creditor to whom he ought to have transferred the land. That large estates should be burdened, and deprived of the manifest advantages of having capitalist proprietors, has been already alluded to as an evil; but it is feared that a numerous peasant proprietary, with burdened possessions, is a still greater evil. * * *

"There is an element likely to deceive partial observers in the superior productiveness per acre of small over large holdings—when there is such a superiority, which is a feature so often vouched for, that it must sometimes really exist." Mr. Burton then quotes from Mr. Laing's *Notes of a Traveller*, a passage exalting the labor of Flanders, East Friesland, Holstein, and all the coast from the Sound to Calais, over that of the corresponding country from the Firth of Forth to Dover. Even granting this to be true, Mr. Burton says,—

"It is possible to apply too much labor to the land, and thus to buy its productiveness too dear. A forcing frame is twice or thrice as productive as the same square area subject to ordinary cropping, or gardening; but it does not follow that it would be advantageous to the community to spend so much labor and capital on production, as would be necessary to procure it through the instrumentality of forcing frames. An acre covered with glass will perhaps produce as much as five acres exposed to the atmosphere; but if it would cost as much labor, or money, to cultivate the single acre after this fashion, as to cultivate twenty acres in the ordinary manner, and the twenty acres are to be had, there will be no profit in the forcing system. To make the man who produces a blade of grass, where no blade of grass has grown before, eminently meritorious, he must find out the place where, and the manner in which, his blade is to grow the cheapest. Labor spent in working up land, to make it give forth a small additional produce, when it might have been applied to other land with such efficacy as to effect a larger produce, is misspent. The man who first stated that a pin a day is a groat a year should

have informed people how many groat's worth of labor they will expend in collecting a pin a day : he evidently was not the author of the other embodiment of popular wisdom, which describes a certain course of action as 'penny wise and pound foolish.'

"To produce food is the aim of agriculture; and, economically speaking, the people who obtain the largest quantity of food with the least expenditure of labor have made the best investment of their industry."

217. These arguments so admirably stated are perfectly conclusive. And, indeed, it is somewhat remarkable that these small properties should be so earnestly espoused by Mr. Mill, who is a disciple of the Ricardian Theory of Rent. It is the fundamental dogma of the Ricardian school of Economists, that every increased quantity of labor devoted to the land produces a proportionably less and less return. Mr. Mill himself distinctly states it, *Vol. I. p. 216*,—

"After a certain and not very advanced stage in the progress of agriculture; as soon, in fact, as men have applied themselves to cultivation with any energy, and have brought to it any tolerable tools; from that time, it is the law of production from the land, that in any given state of agricultural skill and knowledge, by increasing the labor, the produce is not increased in an equal degree; doubling the labor does not double the produce; or to express the same thing in other words, every increase of produce is obtained by a more than proportional increase in the application of labor to the land. This general law of agricultural industry is the most important proposition in Political Economy."

Thus Mr. Mill, in advocating these small peasant proprietorships, on the score of the industry of their owners, is advocating a system of labor which he maintains produces a constantly diminishing result for a constantly increasing quantity of labor. But this is the very doctrine which Bastiat has combated with such brilliant success in the *Sophismes Economiques*. It is exactly the old Protectionist doctrine of encouraging labor, merely for its own sake. The true Economical doctrine is to produce the greatest result with the least labor. Now, if a nation can obtain a greater amount of corn and agricultural produce with less labor and expense, by exporting its manufactures than by growing it for themselves, it is clearly for their advantage to import it than to grow it. It is just an example of what Adam Smith says about growing vines under hothouses and making wine in Scotland. No doubt it could be done, but at thirty times the expense at which wine could be imported from the South of Europe. It is, therefore, much more advantageous for the country to purchase wines with its produce, than to make them itself.

218. Nor is the notion of encouraging mere industry for its own sake better founded. There can be little doubt, indeed, but that artisans work a very great deal harder, much more continuously, and with much greater intensity than agricultural laborers, and that their labor is much more productive.

219. The last argument is national happiness. It is said that a nation of peasant proprietors is a much happier people than a manufacturing one. We very much doubt that national happiness is

produced by legislation. Bad legislation may produce much misery, and much poverty, but we doubt that it can produce either wealth or happiness. The function of legislation is to remove causes which obstruct progress in wealth, and obstruct happiness, but it cannot produce them directly. But the happiness argument seems to us a very vague and intangible one. Are we sure that the people in those countries are so very much happier than the people in England? We are somewhat sceptical on that point.

But, after all, the countries from which those who most favour peasant properties chiefly draw their arguments are but very secondary countries. The examples chiefly cited are Switzerland, Tuscany, and Norway. But of what weight are they in the councils of the world? It is perfectly notorious that they exist merely by the sufferance of their more powerful neighbours. Switzerland *may be* a happy country, but does she exist of her own strength, or by the toleration of her more powerful neighbours? France would eat her up for a morning meal. What is Tuscany among the nations? What is Norway? Each of these countries may be happy, but it is a happy obscurity. They have no position to maintain in the world, no fleets and armies to support, to make their voice heard and respected among nations. They may therefore waste their labor in any fanciful way they please. But the question is, is such a system applicable to England? England stands in a very different position from either of these. She has an enormous debt to provide for, and gigantic fleets and armies to maintain. These must be kept up in order to enable her to keep her place among peoples. To keep these up requires constant and unrelenting toil, and moreover that, that toil should be directed in the most remunerative channel. That England should outwork every other nation is the very condition of her existence. The first place in the world must remain to that nation which can outwork and outborrow every other. The maintenance of the power of England depends upon the increase of her Capital, and to promote that, it is indispensable that it should be employed in the most productive manner. The most productive manner of employing capital most conduces to the increase of a thriving population, and in a thriving population and abundance of capital the power of the nation manifestly consists. There can be no possible doubt that it would seriously impair the progress of the power of England to cut the land up into peasant properties. And it would be but a sorry day for her, when she should adopt the fatal advice of designedly diverting her industry from a more productive employment to one avowedly greatly less productive. It would be nothing less than an overthrow of the whole modern science of Political Economy.

220. From the considerations we have seen above, shewing how much more the increase of Capital depends upon the rapidity of revolution than upon actual profits, it is manifest how greatly it is promoted by the multiplicity of exchanges. In order to encourage this, it is manifestly of the greatest importance to have things as cheap as possible. This shows how injuriously ignorant legislation may affect the progress of national wealth. It shows how injuriously the raising of

the prices of commodities by heavy taxes acts, by arresting the rapidity of their circulation, and so preventing the growth of Capital. It shows that it is far more injurious to the progress of wealth than the actual sum levied in the way of taxation.

221. The truth of these remarks is abundantly verified by the prodigious advance the industry and wealth of the country have made since the inauguration of Free Trade. This increase affords some measure by which we may form some idea of the enormous injury sustained during the long prevalence of Protection. It may be asserted with the greatest safety that England would have been a richer country by many thousands of millions, if she had not been cramped in her progress by these fatal theories. Boisguillebert was one of the first to call attention to the Economical effects of good or bad administration. If any one wishes to have some idea of the destructive effects of bad government on national wealth, he may read them in Mr. Senior's Turkish Journal.

222. We must now bring this article to a conclusion. It is but a brief survey of the subjects it comprehends. Each of them demands a separate investigation, and for fuller information we must refer to the several heads of ANNUITIES; BANK NOTE; BILL OF EXCHANGE; BILL OF LADING; DOCK WARRANT; CREDIT; COPYRIGHT; GOODWILL; FUNDS; PRACTICE; PROPERTY; RICHES; WEALTH; VALUE.

223. The preceding article is only one among many examples, of the immense importance of obtaining true conceptions. As soon as we obtain a firm grasp of the conception that PROPERTY is not a THING, but a RIGHT, we find that a blaze of light is thrown over the whole subject. It immediately proves the independent existence, and explains the nature, of gigantic masses of property, which have either been entirely overlooked by Economists, or whose nature has been greatly misunderstood. We are persuaded that no one acquainted with Mathematical and Physical science can fail to see that the preceding considerations give as great an extension to the field of Political Economy, as Algebra did to the field of Arithmetic, by the introduction of negative quantities. Algebra shews us that quantities extend on both sides of 0 to infinity, and that positive and negative quantities are to be ADDED together to find the mass of the totality. This is also the case in Natural Philosophy. And the preceding considerations shew by the strictest analogy that the PROPERTY, or the RIGHT to the future may be measured with as great exactness as the Property, or right to the past. And that these two—the Property in the past, which is positive, and the Property in the future, which is negative—are to be ADDED, to find the mass of the totality of Property.

224. But not only do the preceding considerations give this extension to the field of Political Economy, but they introduce as great a revolution in the *method* of treating it, as the introduction of the doctrine of motion into the old geometry. As soon as we understand that Capital is an increasing quantity, there is at once the doctrine of motion introduced into Political Economy, with all its consequences. These ideas have been actually involved in the very language which Economists

have used. All have admitted that capital is an increasing quantity, and in this age when the knowledge of Natural Philosophy is so spread, it is little less than marvellous that they should scarcely have had the slightest notion of the necessary consequence of the language they were using. It was positively bursting with this conception. Yet only two, that we are aware of, seem to have felt its true significance. Thus Bastiat says, *Harmonies Economiques; Capital* p. 221. "Le vire acquirit eundo s'applique avec une exactitude rigoureuse au Capital, et à sa bienfaisante influence. Tout Capital qui se forme laisse nécessairement disponible, et du travail, et de la rémunération pour ce travail. Il porte donc en lui-même une puissance de progression. Il y a en lui quelque chose qui ressemble à la loi des vitesses."

So Mr. Jennings, *Natural Elements of Political Economy*, p. 259.

"Our instruments, although acting on and through the principles of human nature, are found to consist of metallic indices related as parts and multiples, and not less capable of being made subservient to the processes of exact calculation than are the instruments of any purely physical art. The results of these principles, when observed, may thus be expressed in figures, as may also be the anticipated results of their future operation, or such relations as those of Quantity and Value. Value and Rate of Production may be exhibited in the formula, and analyzed by the different methods of Algebra and Fluxions."

225. Seeing, then, that the very language which Economists are compelled to use necessarily involves conceptions which are strictly analogous to those of Natural Philosophy, the time has come when the science of Political Economy must be treated in a manner strictly analogous to that applied to Physical Science. The work of Economists since the days of Adam Smith has been almost entirely destructive. There is no one who has conferred more enduring benefits on the human race than Adam Smith, and those eminent men who have given effect to his doctrines in practice. But we must never forget that their principal work was to beat down and destroy the mischievous theories of Protection. To destroy error is a very different matter from erecting a great science. Since the time of Adam Smith vast masses of economic truth have been discovered, but they lie in a crude and unconnected state. The business of future Economists is to reduce these masses of acknowledged truths into one great harmonious science, by discovering the fundamental conceptions and axioms which connect them. The time has come to realize the sublime conception of Bacon, who was the first to see that Natural Philosophy is the mother of all science, and that the reasonings of all science must be referred to that for comparison and rectification. That Political Economy is based on certain peculiar conceptions and axioms, like every other great science, is an indubitable fact. And when they have been searched out and investigated, and tested by the acknowledged laws of Inductive Logic, Political Economy will then be fitted to take rank as the youngest sister of the Physical Sciences. (PRELIMINARY DISCOURSE.)

ANALYSIS OF THE ARTICLE.

- § 1-9. *Necessity of obtaining accurate conceptions, which are not arbitrary, but founded in nature.*
- § 10. *Two Canons applicable to the formation of Economical Conceptions and Axioms.*
- I. *The fundamental Conceptions and Axioms of any Science must be perfectly general.*
 - II. *No general Conception, and no general Axiom, must contain any element involving more than one fundamental idea.*
- § 11. *Examples of this—The definition of Mechanical force; and Aristotle's definition of Wealth.*
- § 12. *When conceptions are obtained inductively, we must proceed deductively to discover all classes of cases to which they are applicable.*
- § 13-17. *Investigation of the origin and meaning of CAPITAL in Greek, Latin, Italian, and French.*
- § 18-34. *Investigation of the meaning attributed to the word CAPITAL by Turgot, Adam Smith, J. B. Say, Ricardo, Malthus, Mr. Senior, James Mill, Mr. McCulloch, Rossi, Mr. J. S. Mill, Coquelin.*
- § 35. *General sense to be collected from these writers that—Capital is Wealth accumulated from past human labor, and employed in a particular manner.*
- § 36. *This conception violates the Canons above stated in § 10.*
- § 37-39. *The limitation "accumulation of past labor," not the essence, but the accident, of Capital, and to be rejected from the general conception.*
- § 40, 41. *This agrees with passages in Mr. Senior, and Mr. J. S. Mill.*
- § 42. *Remarks of Dr. Whately on the conception of Value, applicable to other conceptions.*
General conception of Capital—Capital is an Economic Element devoted to the purposes of profit.
- § 43. *Investigation of the question—What is an Economic Element?*
- § 44-54. *Examination of the opinions of Economists, whether incorporeal elements are to be admitted into Political Economy. The opinions of Socrates, Aristotle, Turgot, Quesnay, Beccaria, Adam Smith, J. B. Say, Ricardo, Mr. Senior, Malthus, Bastiat, M. Baudrillard, Mr. Cazenove.*
- § 55-59. *The question is to be determined by the analogy of the Physical Sciences.—They shew that incorporeal elements are to be admitted into Political Economy. Everything of which the value may be measured is an Economic Element. Agreement of M. Michel Chevalier in this opinion.*
- § 60-69. *Conception of Capital adopted—Capital is an Economical Element used for the purposes of profit.*
Capital is, therefore, an increasing, or CONTINUOUS QUANTITY.
It, therefore, extends from the PAST into the FUTURE.
- § 70-75. *Explanation of the meaning of the terms positive, and negative, in Algebra and Natural Philosophy.*
CAPITAL is a CONTINUOUS QUANTITY, which passing through 0, or the present, into futurity, CHANGES ITS SIGN.
- 76-79. *Which means that the property, or right, in past profits is positive, and the property, or right, to future profits is negative. And these latter, or negative, rights are to be added to the former, or positive, ones.*
- § 80-93. *Investigation of the different species of Capital, based upon Aristotle's doctrine of Value.*
- § 94, 95. *IT IS DEMAND, OR CONSUMPTION, AND NOT LABOR, THAT GIVES VALUE TO PRODUCTION.*
- § 96-99. *On the nature of the Funds, and the opinions of J. B. Say and Mr. J. S. Mill respecting them.*
- § 100-104. *Every man's income is paid out of the income of some one else.*
- § 105, 106. *The funds are independent property.*
- § 107, 108. *The word PROPERTY denotes an attribute vested in the person, and not in a thing.*
- § 109. *Things which may be the subject of property are divided into two fundamentally distinct classes,—*
- I. *Those which are in a state of complete and final existence at the time of possession.*
 - II. *Those which only come into existence at future intervals of time*
But although they only come into existence at future intervals of time, the PROPERTY or RIGHT to them is PRESENT.
- § 110. *The Theory of the Value of Land is the grammar of the Theory of Value in general.*
- § 111-127. *Investigation of the theory of the Value of Land, Railways, Canals, Shares in Commercial Companies of all sorts.*
The Capital, or source of Profit, and the Profits, are separate and distinct property.
In some cases, the Value of the Capital may remain, and the Value of the Profits may remain.
In other cases, the Value of the Profits may remain, while the Value of the Capital vanishes.
In other cases, the Value of the Capital may remain, while the Value of the Profits vanishes.
In other cases, the Value of the Profits, and the Value of the Capital, may vanish together.
- § 128-134. *Shares in Commercial Companies are separate, independent, and incorporeal, property.*
Analogous to a share in a company, are the Goodwill of a business, Copyright, the Practice of a Professional man.
All these are separate, independent, and incorporeal property, which may be accumulated, and transferred from person to person, like material products.
All this mass of property has been omitted by Economists in framing a definition of Wealth.
- § 135. *This confirms the necessity of rejecting the "accumulation of past human labor" from the definition of Capital.*
- § 136, 137. *Third species of property, where the Capital, or source of profit, is immaterial, but the product material.*
- § 138. *Fourth species of property, where the Capital and the Product are both immaterial.*
- § 139. *Objection to the criterion of Wealth proposed by Malthus and M. Baudrillard.*
- § 140, 141. *J. B. Say and Dr. Whately were the*

first Economists to see that Rights are Economical Elements.

PROPERTY IS NOT A THING BUT A RIGHT.

Distinction between the transfer of the possession of a thing and a transfer of the property in it.

§ 142-162. *Investigation of the nature of CREDIT.*

Opinions of Hamilton, Daniel Webster, Mr. McCulloch, Mr. J. S. Mill, and Bastiat, that Credit is Capital.

§ 163-168. *Investigation of the nature of the FUNDS.*

§ 169. *Enormous extent of incorporeal Wealth.*

§ 170. *On Mr. J. S. Mill's account of Utilities.*

§ 171. *Is gas Wealth?*

§ 172. *Question proposed to Economists who deny incorporeal elements admission into Political Economy.*

§ 173. *The different species of Property: the domain of Political Economy, may be divided into three classes,—*

1. *The right to the use and enjoyment of existing material products of all degrees of durability.*
2. *The right to the use and enjoyment of immaterial products, which perish in the using.*
3. *The right to the use and enjoyment of products of all sorts, which have no present existence, but only come into existence at some future time. Although these products are future, the RIGHT to them is PRESENT, and may be accumulated, and transferred by sale, or exchange, equally as any material products.*

The first two classes of products having an actual existence at the time of the exchange, may be called positive.

The third class having no actual existence at the time of the exchange, may be called negative.

The rights to products of the third, or negative, class are to be ADDED TO, not SUBTRACTED FROM, those of the first two.

§ 174, 175. *Further considerations respecting Incorporeal Capital.*

§ 176. *Error of Malthus's doctrine of population.*

§ 177-179. *Problems of maxima and minima in Political Economy. Error of Ricardo's Theory of Rent.*

§ 180-185. *On fixed and floating Capital.*

§ 186-188. *Error of some prevalent doctrines on Capital.*

§ 189. *Comparison of hire, or rent, with price.*

§ 190, 191. **LABOR, MATERIALITY and DURABILITY are all the Accidents, and not the ESSENCE of VALUE.**

DEMAND IS THE ONLY SOURCE OF VALUE.

Value requires the concurrence of two minds.

§ 192, 193. *It is not Labor which is the cause of Value, but Value which attracts Labor.*

§ 194. *Value originates in the mind.*

§ 195-201. *Rejection of Utility as the basis of Value.*

Quotation from Dugald Stewart illustrating the Doctrine of Value.

§ 202. *These considerations useful in the Theory of the Income Tax.*

§ 203-215. *On the Increase of Capital.*

Capital may be productively employed in three ways:—

1. *In augmenting the quantity of existing things.*
2. *In adding to the value of existing things.*
3. *In substituting things of greater value in the stead of things of less value in any place.*

On the revolution of Capital, and Rate of Profit.

§ 216-219. *On la grande and la petite culture.*

Quotation from Mr. John Hill Burton regarding this.

§ 220, 221. *Desirable to promote multiplicity of Exchanges.*

§ 222. *References to other articles.*

§ 223. *The considerations in this article give as great an extension to the FIELD of Political Economy, as Algebra did to the field of Arithmetic.*

§ 224. *And they introduce as great a revolution in the METHOD of treating it, as the introduction of the Doctrine of MOTION into the old Geometry.*

§ 225. *Conclusion.*

CAPITAL AND LABOR.

A brief and candid enquiry as to the present state and future prospects of the agricultural and manufacturing labouring classes, with the mutual dependence of Capital and Labor upon each other. London, 1849.

CAPITALISTE.

Lettres d'un Capitaliste nouvellement établi en France à un Banquier de Londres. Paris, 1803.

CAPITELLI, DOMENICO.

Comento ideologico-storico-pratico delle leggi relative all' accessione industriale mobiliare. Napoli, 1836.

CAPMANY Y MONTPALAU, ANTONIO

DE, an eminent Spanish writer of the last century, was born at Barcelona, 24th November, 1742. He served in the army for some time, and then took part in a scheme to colonize the Sierra Morena. This having failed, he went to live at Madrid. He travelled in Italy, France, Germany, and England. He resided at Madrid till 1808, greatly respected by the government. When the French entered Madrid, he retired to Seville, and afterwards was a member of the Cortes of Cadiz, where he died of yellow fever in 1813.

Capmany published several works in general literature. His economical writings are,—

Código de los costumbres marítimas de Barcelona, hasta aquí vulgarmente clamado libro del consulado. 1791.

Memorias historicas sobre la marina, comereio y artes de la antigua ciudad de Barcelona. Madrid, 1779-92.

Quêstiones críticas sobre varios puntos de historia economica, politica, y militar. Madrid, 1817.

Discurso economico-político en defensa del trabajo mecanico de los menestrales, y de la influencia de sus gremios en las costumbres populares. Madrid, 1778.

This latter work did not appear in Capmany's name, but is generally attributed to him. The

others are very highly esteemed by all writers. The second is more especially valuable, as it contains a large collection of original documents relating to the commerce of Barcelona in the middle ages.

CAPON, PAUL.

Mon opinion sur les finances. Paris, 1798.

CAPPE, HEINRICH PHILIPP.

Beschreibung der Mainzer Münzen des Mittelalters. Dresden, 1856.

Beschreibung des Münzen des vormaligen Kaiserlichen freien weltlichen Stifts Quedlinburg. Dresden, 1851.

Die Mittelalter Münzen von Münster, Osnabrück, Paderborn, Corvei, und Hervord. Dresden, 1850.

CAPPEL, JACQUES. The younger, Sieur de Tilloy.

De ponderibus, nummis, et mensuris. Francofurti, 1606-07.

CAPPONI, GINO.

Cinque Lettere de economia Toscana. Firenze, 1845.

CAPPS, EDWARD.

Early in 1857, the Society of Arts announced that a Mr. Henry Johnson had placed £200 in their hands, as a prize to be given to the author of the best "Essay on the present Financial Position of the Country, as affected by recent events, in which the principle of a Sinking Fund should be discussed, and also an investigation made as to the best mode of gradually liquidating the National Debt." The Society appointed Mr. J. T. Danson, Fellow of the Statistical Society; Mr. Charles Neate, Professor of Political Economy in the University of Oxford; and Mr. Jacob Waley, Professor of Political Economy in University College, London, as adjudicators of the Prize. Mr. Edward Capps was the fortunate winner of the prize in an essay entitled,

The National Debt financially considered.

The importance of the subject certainly invites our attention to the essay which obtained this prize. The author tells us in his preface, that he is not a litterateur by profession, but regularly occupied during eight or nine hours of each day in commercial pursuits, and that the essay was composed during the intervals before and after business. This, he says, does not exempt his essay from fair and candid criticism. This is unquestionably true; and in the following remarks we shall do nothing but examine into the book as it stands, without reference to its origin. At p. xiii., however, of his Preface, Mr. Capps rather shakes our confidence in his Economical knowledge, for he says, "There does not appear to be any general agreement among public men and public writers, as to the main point to be aimed at in the prosecution of our trade with foreign countries? Ought we to aim at an excess of exports, or an excess of imports? Has the trade which we have been carrying on with other nations for the last fifty years, resulted, on the whole, in a fair exchange of equal values on the

part of the respective trading parties?" We should have imagined that every public man and every public writer of the present day, who had the slightest claim to be considered as an Economist, and who understood the fallacy of the Theory of the Balance of Trade, was perfectly aware of the fact, that the value of our foreign Trade was measured by the excess of the value of the imports over the exports. Mr. Capps is a commercial man. Would he consider that he was flourishing in business according as he sells to the public at prices exceeding or falling short of what his commodities cost him? We should imagine that every person knew that he gains just in proportion as he can sell his goods for more than they cost him. So it is with the national shop. The nation must manifestly gain just in proportion as it sells its goods to foreign nations for more than they have cost it. If Mr. Capps had been well posted up in economical knowledge, he would also have known that in commerce both sides gain,—not of course in every individual instance, because many persons make bad speculations, but upon the whole,—or else how could commerce be carried on?

The essay is divided into two parts:—I. The Statistics, History, and Operation of the National Debt. II. The present financial condition of the country, and suggestions for improving it.

Introductory remarks occupy Chap. I. of Part I., and Chaps. II. and III. give a slight sketch of the history of the debt from its rise to 1816, in which Mr. Capps animadverts on the improvident manner in which several of the loans were raised; and at p. 10, thinks that if no debt existed, the expenses of each year might always be provided for by the taxation of each year, and that all borrowing upon annuities, temporary or perpetual, should be prohibited.

In Chap. IV. he inquires, "What was the value really borrowed by the State in the contraction of the National Debt, up to the year 1816." He says, that up to that time the nominal Capital of the Debt was augmented by at least 276 millions sterling beyond the sum actually received, and that this difference was increased by the various alterations in the monetary system of the country, by the measures of 1797, 1819, and 1844. He proposes, therefore, to ascertain the real value lent to the nation. In 1815, he says, it stood at 816 millions of pounds. He criticizes Sir Robert Peel's definition of a pound, that "according to the ancient monetary policy of this country, the meaning of a pound is neither more nor less than a certain definite quantity of gold, with a mark upon it to determine its weight and fineness." That Sir Robert Peel fell into a slight error in saying that the "pound" was always gold, is true, because it was anciently silver, and then gold and silver conjointly; but he is substantially right, that it is a definite quantity of silver or gold, with a mark to certify its weight and fineness.

Mr. Capps however maintains that during the period when the greater part of the debt was contracted, "the pound was not practically a metallic pound at all, but merely a piece of paper issued by the Bank of England, of no intrinsic value whatever, but alone valuable in the proportion that it would purchase commodities." Pray, let us ask Mr. Capps, what intrinsic value have gold and silver? What value have they at all,

except as they will purchase commodities? Further, Mr. Capps is a commercial man; he, therefore, probably receives and accepts Bills of Exchange in the course of his business. Now suppose he has received, or given, a Bill of Exchange, i.e., received or given a debt contracted in paper, would he consent to receive, or would he demur to pay, gold for a debt contracted in paper? We imagine he would scout such a notion. Well, then, what were Bank notes during the suspension? They were "promises to pay" solemnly pledged to be redeemed in gold at the end of the war. To refuse to pay these notes in gold would have been as much a bankruptcy, as it would be in Mr. Capps to offer to pay his own acceptances at 15s. in the pound.

Mr. Capps then goes into an investigation of the nature of a standard of value, and at p. 44, says, that gold and silver are no standards of value apart from the price of provisions. Thereby shewing that they have no intrinsic value, any more than Bank Notes. Having rejected, then, gold and silver as standards of Value, he adopts corn as the only true standard, a notion which we may say is altogether exploded now. He says, "During the century which elapsed from the commencement of the debt, to the beginning of the French revolutionary war, the average price of wheat was as nearly as possible 36s. per quarter, or 4s. 6d. a bushel. The debt contracted during this period stood, nominally, at the beginning of 1793, at £229,614,496, from which we must deduct £29,119,710, being the amount artificially added to the debt by the mode of borrowing adopted. This will leave a balance of £200,494,786, which being reduced into wheat at 36s. per quarter, gives the real sum borrowed, in the necessities of life, as 111,385,992 quarters of wheat.

"From 1793 to 1816, the price of wheat may be reckoned at about 80s. per quarter. The debt contracted during this period, was, as we have seen in a former chapter, nominally £586,697,433, but really only £339,131,500; which also being reduced into quarters of wheat at 80s. a quarter gives a further amount borrowed of 84,782,875 quarters; and adding this to the former amount, we arrive at a grand total of 196,168,867 quarters of wheat, as the real, true, and just amount of our National Debt, as it stood at the close of the French war, if measured in the real and natural standard of Value. It is this, or the equivalent of this, that the fundholder parted with to become the creditor of the nation, and to the repayment of this, he is at least, fairly entitled, if the contract with him be, as Colonel Thompson expresses it, 'substantially fulfilled.'"

Now let us ask what is the drift of all this long investigation? Does Mr. Capps really propose that the fundholder should be compelled to accept this, in discharge of his claims? Would any commercial man seriously propose such a thing in his own business? He accepts a bill at six months. During that time, wheat has fallen from 70s. to 50s., no uncommon occurrence. Would Mr. Capps seriously propose that in such a case the acceptor of a bill should be discharged on paying the price of as many quarters of corn at 50s., as would have bought the same number at 70s.? Suppose the reverse case, supposes Mr. Capps had accepted a bill at six months, wheat

being 50s., and during the currency of the bill wheat rises to 70s.; would Mr. Capps be willing to pay his creditor as much additional money as would be sufficient to buy an equal number of quarters of wheat at 70s., as the sum he agreed to pay would, when wheat was at 50s.?

There is no man in business but would scout such a notion, as utterly visionary and absurd. It would introduce perplexities into commerce a thousand times worse than what exist already. When will writers learn that the finance of the nation is to be treated exactly in the same way as the monetary concerns of a private person?

Mr. Capps's 4th chapter, therefore, either helps us to nothing, or it favors a scheme that no statesman or Parliament would ever entertain.

Chap. V. continues the sketch of the history of the debt to 1857. Chap. VI. is on the "*Change produced by the national debt in the system of taxation of the country*," in which he maintains that a great and permanent alteration in the system of taxation, namely, from one chiefly direct, to one chiefly indirect, was established at the period of the debt. But Mr. Capps is not consistent with himself, for he says immediately after, that the Long Parliament originated the change in 1643, fifty years before the Bank! Moreover, even granting the change took place *concurrently with*, that does not prove that it was produced by it. That is even a worse fallacy than the *post hoc, ergo propter hoc*. However by the imposition of the Income Tax, and the growing feeling in favor of it, we are manifestly coming back to direct taxation. So that it is clear that the National Debt has nothing whatever to do with any particular mode of taxation, either direct, or indirect.

But if Chap. VI. is dark, Chap. VII. is a hundred times darker. It is on "*The antagonism produced by the National Debt between our system of taxation and currency*." How a national debt can produce an antagonism between a system of taxation and currency, is to us an inscrutable mystery, nor does the chapter itself, of three pages, render the matter any clearer to us, and we confess to being entirely baffled in our efforts to divine the meaning of this chapter.

Chap. VIII. is on the "*Operation of the National Debt upon the Currency of the Kingdom*," which we understand as little as the preceding one.

Chapter IX, is on "*Two popular fallacies respecting the debt*." In this chapter, Mr. Capps undertakes to shew the fallacy of two common opinions on the debt. He says, p. 86, "There are two antagonistic and conflicting fallacies respecting the National Debt, which are very prevalent. The first is that funded property forms as much a portion of the wealth of the country, and is therefore to be reckoned among its assets, as lands, houses, or any other description of tangible property. The second, which is precisely the opposite of the former, is, that the debt is a subtraction, or deduction from the wealth of the country; that the country is so much the poorer for it. Neither the one nor the other is correct; for the truth is, that the country, with the trifling exception, which we shall hereafter name, is neither the richer nor the poorer for the existence of the Debt, and that consequently, both the opinions we have mentioned as being prevalent,

are erroneous; which we shall now proceed to shew.

"With regard to the first—we have seen estimates made of the total wealth of the country, in which after the enumeration, as a portion of the wealth of the nation, of lands, houses, raw materials, and manufactured products of all descriptions, there has been an item inserted of 'Funded Property,' which has been considered as of itself, an actual property, separate from, and in addition to, all other wealth. Now the debt, or the funds, though a property to the parties who hold them, are not so to the nation as a whole; *for they are only a mortgage upon the rest of the property of the country*, and by just so much as they are property to the holders, they are an incumbrance, and a diminution of the value of the things so mortgaged, or encumbered.

"It is precisely a parallel case to the following:—A is worth £10,000 in the shape of an estate of that value. B is worth £5000 in money. A mortgages his estate to B for £5000, and *spends the money unproductively*. Let now a valuation be made of the amount of the property of A and B jointly, and we shall find that the amount of their united wealth is just the value of the estate, and nothing more. The estate is worth £10,000, £5000 of which belongs to B as mortgagee, and £5000, the value of the equity of redemption, to A as mortgagor. The mortgage in nowise adds to the value of the estate; and though it is a property to B, as mortgagee, it is to the same extent a diminution to A of the value of the estate.

"It is the same with the national debt. The whole country and its productions are mortgaged to the fundholder, to the extent of about *one-seventh of their value*; and though such funds form a property to the holders of them, they are only so in the character of a mortgage, which reduces the value of the property mortgaged to its proprietors by just the amount of the mortgage. In taking, therefore, any account, or making any valuation of, the total wealth of the country, funded property must not be put down as an item, unless you make a corresponding deduction, on the other hand, from the value of the property of which it forms a mortgage."

Mr. Capps values the wealth of the country at £6,000,000,000, both with the debt, and without it. The difference is, that without a debt of £800,000,000, everybody would possess his property without deduction, on account of the mortgage.

We have quoted this passage at length, because it expresses a view which is by no means uncommon among Economists, which, however, is completely erroneous, and, as we shall shew, involves Mr. Capps, in a subsequent chapter, in inextricable contradiction, when we come to estimate the comparative burden the National Debt is to the country.

Mr. Capps says the National Debt is not wealth, because it is only a mortgage on the country, and its productions.

Now, what is a mortgage? A mortgage is the name of a deed of conveyance of property. It is a deed of sale of some special property with the right of repurchase, upon paying off the money borrowed. The mortgagee becomes the actual owner of the property.

Now, when were the fundholders ever put by

a formal deed of conveyance into possession of the country and its productions? Let us see the Act of Parliament that did so. Until the deed of conveyance which gave over the country and its productions to the fundholders can be produced, it is clear that the funds are *not* similar to a mortgage on the property of the country.

No one ever pretended that such a thing ever took place. The property in the country and its productions remains with their owners, and was never given to the fundholders. Hence the funds are not a mortgage on the property of the country.

What, then, are they?—*They are a charge on the incomes of the people of the country*. A property of a perfectly distinct nature from a mortgage on the country.

Some persons may not perceive the distinction. But we shall shew that there is a very great difference indeed in the two things, and it will be especially seen when we estimate the comparative burden the funds are upon the wealth of the country. In the following remarks, as well as those on Chap. I., Part II., we take Mr. Capps's figures as we find them. We shall not, here at least, make any attempt to rectify them.

Now, Mr. Capps values the wealth of the country at £6,000,000,000. Where does he get this value from, and what is included in it? At all events, taking this value, he says that the National Debt is about one-seventh of the wealth of the country.

But what is the *wealth* of the country?

Adam Smith, and nearly every Economist of name since his day, have all maintained that the natural and acquired abilities of all the members of society are part of the "wealth" of the country. They all admit that the expense and labor bestowed upon education is fixed capital, and to be counted in the wealth of the country. Are these included in Mr. Capps's estimate of the wealth of the country? We will be bound to say they are not. Moreover, we will venture to say that that gigantic mass of property called incorporeal personal estate of all sorts, and described under CAPITAL, is not included in this estimate. What, then, is its worth?

Now, when Mr. Capps says that the National Debt is about one-seventh of the wealth of the country, we must manifestly know what he includes under "wealth." When he says that it is a mortgage on this wealth, we must clearly know what is mortgaged. When Mr. Capps says that the national debt is a mortgage upon the property of the country, we wholly deny it. We say it is a charge upon the *income* of the people, which is a totally distinct thing.

Some of our readers may not see the difference. Well, the difference is just the same as between a merchant accepting a Bill of Exchange, and granting a mortgage upon his premises. The one is a right to share in the *future* produce of his industry, the other is a conveyance of his actually existing property. Two things which any one conversant with law or commerce will see are totally distinct.

The importance of this distinction in comparing the weight of the national debt to the *wealth* of the country is manifest; when we consider that the payment of the interest of the debt is not only a charge upon persons who have material property, but a charge upon the industry of

persons who have no material property. The industry of all the professions is just as much pledged for the payment of the dividends as the incomes of those who have real estate. Intellectual Capital is just as much pledged as material Capital; a consideration of the greatest importance, when we consider the weight of the debt, and the proposed means of paying it off, as well as the plan of raising all the charges of the year by taxation in the year.

Some persons propose that the debt should be extinguished by compelling every one who has property to give up so much of it. But how are we to compel those whose whole property consists in their abilities to give up a part of it? Some persons propose, indeed, that all taxation should fall on realized property, but we should imagine that there is no chance of such wild folly ever being countenanced by rational men. At all events, we shall not discuss the matter here. (TAXATION.) Now, no doubt, it is possible to confiscate material property. If a man has a hundred acres of land, or a thousand pounds, the State may take away ten acres of land, or a hundred pounds of his money, one-tenth of his Capital, but how is the State to take away the one-tenth part of incorporeal or intellectual capital? A great lawyer makes, we will say, £10,000 a year. While he does so, his talents are as much capital to him as an estate in land of £10,000 a-year to its owner. But how is the State to get hold of one-tenth of his capital? Is it to take an axe and chop off a bit of his head? It is perfectly clear that there is no possible method of taxing incorporeal capital, but by taxing its profits, or income. Now the industry of every lawyer, and every other professional man, is as much pledged for the payment of the dividends, as the income of men of real estate.

The funds, then, do not resemble a mortgage. They resemble Bills of Exchange, which are quite different from a mortgage (FUNDS.) They are not a pledge of existing property, but of the right to share in future profits. We shall soon see the application of these remarks.

In Chap. X., Mr. Capps gives a short sketch of the different sinking funds, which have in turn deluded financiers and statesmen. As the fallacy of these has long ago been demonstrated by Dr. Hamilton, there is nothing new in this part of the work. Nor is there anything new in the one he has to propose. He says, p. 109, "It seems now to be admitted, on all hands, that the only legitimate foundation upon which a sound Sinking Fund, can be based, is that of an excess of ordinary revenue over ordinary expenditure. In order, therefore, to the carrying out of this intelligible and unimpeachable principle, it is essential that those steps be now especially taken, which tend to develop and increase the general wealth of the country. It is from the increase of this wealth that the government alone can look for that revenue which will yield the necessary surplus for the maintenance of a sinking fund. All arrangements which have a tendency to hinder the production of wealth, and to prevent the constant and steady employment of laborious industry, must steadily and upon principle be discountenanced and discouraged." In these general remarks we cordially concur, but they

are manifestly equally true, whether there be any sinking fund or not.

Mr. Capps says, "A Sinking Fund derived from such a source is most legitimate and admirable." We suppose, therefore, that he seriously advocates a permanent increase of taxation for the express purpose of raising a sinking fund to pay off the national debt. If this be so, we can only say that it is a delusion, of the same nature, though not so mischievous in degree, as all previous sinking funds. There is no advantage gained by such a course. No doubt it is a desirable thing that the revenue should always be arranged, so as to exceed the expenditure. And when it does so, rather than let the accumulations be idle, it is better to pay off so much of the debt. But the idea of raising taxation for the express purpose of paying off the debt is a pure delusion. (FUNDS).

We now come to Part II., which contains suggestions for discharging the debt.

In the 1st Chapter, Mr. Capps compares the respective proportions between the wealth of the country and the debt at different periods, and we shall now see the application of the remarks we made on Chap. IX, Part I.

He says that in 1700, Gregory King estimated the total wealth or capital of the country, at 615 millions sterling, and the debt at 15 millions, so that the debt was one forty-first part of the wealth of the country.

In 1800, he says, Dr. Becke estimated the national wealth at 2,500 millions, and Sir William Pulteney at 2,000 millions. Mr. Capps takes the medium 2,250 millions, and the debt being 450 millions, it would be one-fifth part of the wealth.

In 1812, the wealth was estimated by Dr. Colquhoun at £2,736,640,000, and the debt at 670 millions, it would therefore be nearly one-fourth part of the wealth.

Mr. Capps then says, that in 1857 the sum of 6,000 millions may be thought a moderate and fair estimate of the national wealth. The total debt may be taken at 800 millions, from which it appears that the debt would be about one-seventh of the property.

Now we will venture to say that all such estimates of the wealth of the country are mere delusions, and snares. No government inquiry, much less any single writer ever could have any valuation of the wealth of the country which would be of the slightest service in a scientific point of view. We will be bound to say that in this estimate all intellectual capital, and incorporeal estate is wholly neglected, which all contributes to the payment of the dividends. Such an estimate is perfectly worthless, and we will shew it to be so, from Mr. Capps's own figures.

We have said above, what we think, that no one competent to judge will dispute, that the National Debt is not a mortgage on the property, but a charge on the *income* of the people, and it is perfectly manifest that the true mode of comparing the burden of the debt with the wealth of the country, is by *finding what proportion of the income of the country goes to pay the interest on the debt*. The nation is bound to pay about 30 millions a year out of its income to the fundholders. What proportion then does that bear to the income out of which it is paid? That is clearly the true weight of the debt.

Mr. Capps says that the income of the country may be taken in 1857, at between 5 and 6 hundred millions. But as we believe that this estimate only includes those who pay income tax, it is clear that a very large addition must be made for the incomes of those persons who fall below the limit of the income tax, but yet who all pay taxes, out of which the dividends come, and whose incomes are all equally pledged to pay the dividends, as well as those of a duke. Moreover it will be found, we believe, that the greater part of the taxes are paid by those who fall below the income tax, including of course the whole of what are somewhat superciliously called the working classes. In order, therefore, to ascertain the whole of the incomes of the people of the United Kingdom, we must take the incomes of every single person in it, and we shall not be very far wrong in raising this 600 to 1,000 millions.

Now it is quite clear that to obtain a just comparison of the weight of the debt, we must compare the sum actually paid for the dividends, with the income out of which it is paid. Even taking Mr. Capps's estimate, that is in the proportion of 30 to 600, or one-twentieth part.

We now see the consequence of Mr. Capps's misconception of the nature of the debt. By comparing it to a mortgage on the property he makes it *one-seventh* of the national wealth. By comparing the annual payment with the income out of which it is paid, it is *one-twentieth*!

We believe that the real proportion is much less than this, and that the ratio of 30 to 1,000, would be much nearer the truth, that is, one-thirty-third part.

In Chap. II. Mr. Capps considers the plans hitherto proposed for liquidating the debt. One is that of a direct seizure of property, this Mr. Capps justly pronounces impracticable. He then considers the plan of converting it into terminable annuities, which he pronounces so advantageous, that it would have been long since adopted had it been found possible to accomplish it. Only unfortunately every one objects to it, and he says, "Generally speaking, it has been found that money cannot be raised by terminable annuities on any but the most extravagant terms; and the same objection would operate to prevent any voluntary conversion of the debt, except upon terms that would not be thought of. With regard to small portions of the debt, the holders of which might voluntarily offer to accept a terminable annuity upon moderate terms, there could be no objections to the plan being adopted, though we fear few offers would be made.

"But while admitting its general advantageousness, we think that even this mode of liquidating the debt, if it could be carried out, would still be open to the objection that it would throw an additional burden upon the present generation; for no terminable annuity would be taken in exchange for a perpetual one, unless a higher annual interest were paid to the annuitants, during the time the annuity continued. It is useless therefore to think of terminable annuities, if we want any present relief from the burden of the debt."

Mr. Capps then mentions a sinking fund, and says that the only one to be approved of is such a one as he mentioned before, a surplus of revenue over expenditure. However, he seems to dis-

miss all these plans as affording no real relief, in which we agree with him. But unfortunately his plan of a sinking fund kept up at a large surplus of revenue over expenditure is open to exactly the same objection as the one he brings against terminable annuities; in fact it is substantially the same thing, it taxes the present race at a higher rate to redeem the debt.

However, Mr. Capps treats all these expedients as of very subordinate importance, and at p. 157, we find these words:—

"We are persuaded, therefore, that it is not from property that already exists, or that may arise in the natural order of things, that we are to derive the fund by which the National Debt may be redeemed; but from property that can be made to exist for the express purpose of paying off the debt, and the production of which property will benefit all parties engaged therein."

Heigho! Here is something at last. Mr. Capps has surely Aladdin's lamp in his pocket! He is going to make property exist for the express purpose of paying off the debt, when that property neither does exist, nor ever would exist, but for Mr. Capps! Who says that there is nothing new under the sun.

What then is this miraculous plan?

His plan is this, to convert the national debt into annuities, not only terminable, but progressively diminishing—that is, if they began at 3 per cent., at the end of five years they should be reduced to 2½; at the end of another five years to 2¼, and so on, till they should be extinguished at the end of sixty years.

Very fine this. But Mr. Capps acknowledges that the holders of the annuities must receive compensation for this compulsory conversion. And where is this compensation to come from? Here, our readers will say, is the grand secret which Mr. Capps has discovered of creating property which does not exist, and never would exist, but for his plan.

When the reader is anxious to know where this property comes from, he will probably be surprised to read at p. 158,—

"In a few words we think that the fund is to be found in our immense colonial empire, the lands and capabilities of which, comparatively valueless at present, may be made under proper arrangements to furnish ample funds for the redemption of our national debt, were it even twice or thrice its present magnitude."

So after all, this property which does not exist, and never would exist in the natural order of things, is all actually existing in our colonies!

Mr. Capps's plan is simply this, that subscriptions for redeeming stocks should be invited, in sums of not less than £100. That each subscriber should have a terminable and constantly diminishing annuity as above, and be entitled to a grant of public lands in any of the colonies he pleases, to be adequate compensation for the difference in the value of the annuity. That, as the land would be valueless in its unreclaimed condition, each subscriber is to be entitled to an advance, for a certain number of years, of a portion of the money subscribed by him; which portion with others, should be set apart as a general fund to open up proper access to and clear, as far as the fund will admit, the section

of the land so granted. The necessary works for this purpose might either be undertaken by the government, with or without convict labour, or committed to Boards of Commissioners in whose appointment the subscribers should have a voice, or a certain number of whom the subscribers might actually appoint.

"Whatever sum or proportion of the original subscription it might be found necessary thus to set apart, let it form a lien or mortgage upon the land so granted, to be repaid within a given number of years, the subscriber in the meantime paying such an interest for the advance as would be equal to that which was payable in the government stock at the time of his subscription. Subscribers to have the power to redeem the said lien, or mortgage, at any time within the period named.

"Let the remainder of the subscription money, after the above advance is provided for, be devoted to the purchase of stock for the redemption of the debt; and let the interest receivable from the subscribers on account of such advance go to the payment of the dividends on that portion of stock which cannot at present be redeemed until the advance is repaid."

We have given this proposal in Mr. Capps's own words, that our readers may judge of it for themselves.

Mr. Capps points out, that in our colonies and India there are boundless regions which may be applied to such a purpose.

After all, Mr. Capps says that this is the very plan that has been adopted in America to pay off her public debts, which is undoubtedly true, though we think that there is some difference both between the magnitude of the debt to be paid off, and the distance of the land to be disposed of from the parent state.

Mr. Capps thinks that the entire liquidation of the National Debt within sixty years might be effected by these means. We think he is a great deal too sanguine. Taking the debt at 800 millions, it would require 8 millions of persons with £100 each to come forward to do it. Is there the remotest chance of finding such a number of persons? Moreover, all this money is to be withdrawn from productive employment in this kingdom, where it contributes to the revenue, and sunk in distant regions, where it will contribute nothing to the revenue. We fear that there is little more chance of a solid result from such a scheme than from either of the other plans.

We have noticed this essay at such length because the points discussed in it have a real interest, and are much misunderstood. Though we do not think that Mr. Capps is master of them, we congratulate him on his £200.

CARACAS.

Les agricultores y comerciantes de esta ciudad reclamando la alteracion en la moneda. Caracas, 1826.

CARACCIOLLI, DOMENICO, MARCHESE.

Born at Naples in 1715. He was Ambassador to the Courts of England and France. At the latter he became the intimate friend of the French Philosophers. He was appointed Viceroy of Sicily in 1780, and his administration was greatly

applauded. He was appointed minister of foreign affairs in 1786, and held that office till his death in 1789.

Riflessioni sull' economia e l'estrazione de' frumenti della Sicilia, fatte in occasione della carestia dell' indizione III., 1784 e 1785.

CARAMELLI, GUISEPPE.

Sull' amministrazione della giustizia e della finanza. Roma, 1848.

CARBALLO Y WANGÜEMERT, BENIGNO.

Curso de economia política. Madrid, 1855-56.

CARBASIUS, JOANNES.

Carmen de pecuniâ omnium Reginâ quod publicè decantabit. J. B. Hornæ, West Fris., 1705.

CARDONNEL, ADAM DE.

Numismata Scotiæ; or a series of the Scotch coinage from the reign of William the Lion to the Union. Edinburgh, 1786.

CARDWELL, EDWARD, D.D. Principal of St. Alban's Hall, and Camden Professor of Ancient History, in the University of Oxford.

Lectures on the Coinage of the Greeks and Romans; delivered in the University of Oxford. Oxford, 1832.

These are very interesting lectures. (COINAGE).

CARDWELL, EDWARD, The Right Honorable; son of a Liverpool merchant, was born in 1813. He was educated at Balliol College, Oxford, where he took a double first class in 1835. He entered the Inner Temple, and was called to the bar in 1838. From February 1845 to July 1846, he was Secretary to the Treasury. From December 1852 to February 1855, he was President of the Board of Trade, and in June, 1859, he was appointed Chief Secretary for Ireland. He was member for Clitheroe from 1842 to 1847; for Liverpool from 1847 to 1852. He has sat for Oxford, with a short interval, from 1853 to the present time. He was appointed one of his literary executors by Sir Robert Peel, and, in conjunction with Lord Stanhope, has edited one volume of his memoirs.

Mr. Cardwell was chairman of the Committees of the House of Commons on the Bank Acts in 1857 and 1858. The great commercial crisis of 1857 having occurred in the interval, was of course a prominent subject of inquiry. One would naturally expect that a gentleman filling the office of chairman of such a committee, and the author of the Report adopted by the Committee, and presented to the House, should at least be familiar with the mechanism of Banking. Still less should we expect that he should in his questions shew the most manifest want of knowledge on the subject. We will make an extract from the Report first. It says, § 67,—

"Those who advocate what is called the theory of the Act of 1844, are guided by the following principles. They regard Bank Notes as being for every practical purpose, equally with the gold they represent, the money of the country—the measure of value—that which extinguishes debt

—not as a mere form of paper credit, depending on the credit of the issuer, and constituting only the evidence and vehicle for transfer of a debt, which still continues. If complete effect were given to their view, the result would be, that for the whole United Kingdom there would be one description of note only, issued by the State, based on bullion in the custody of the State. This note so secured by bullion, would be a legal tender everywhere, except at the place of issue. Experience having shewn that, even in the times when the paper circulation is most contracted, the sum in circulation with the public at large can never fall below a certain amount, and cannot therefore be presented to the Bank for payment in gold,—they are satisfied that to this extent—so limited by experience—the actual deposit of bullion may safely be dispensed with, the notes in question resting on the security of the State. This is their justification for the permission accorded to the Bank of England to issue 14 millions of notes without the deposit of a corresponding amount of bullion. They consider any addition to the circulating medium of the country to be the act of the private individual who carries bullion to the Mint to be coined, or to the department of Issue to be exchanged for notes; fixing the standard of money, and verifying the conformity of the pieces therewith, by either of these processes to be the duty of the State; *the use of money, and that only, they regard as the province of a bank, whether of a private person or incorporation, or of the banking department of the Bank of England.*

If our readers will refer to the article **BANK** they will see what an entire misconception of the nature and effects of Banking it displays; it will be seen there that Banking especially consists in the *creation of credit, in the form of Bank notes, or deposits.* But we have the most distinct evidence from Mr. Cardwell's own mouth of his total want of knowledge of the subject, in a remark made by him in the examination of one of the witnesses.

Mr. John Torr, a Liverpool merchant, went to America during the pressure in the autumn of 1857, and was examined before the Committee. He was questioned by Mr. Wilson upon the transactions of the American Banks.

4939. "I believe I am correct in the fact, that all the transactions of the banks in New York are published periodically, and at very short intervals, by the banking department?—I believe they are published weekly.

4940. "These accounts, as they are published, shew the circulation of notes, the amount of specie held by the banks, the amount of advances made by the banks, the amount of securities held by the banks, and all the items in great detail; do they not?—They do.

4941. "Are you aware that during the last two or three years, while the circulation of notes had not increased at all, or had increased to the very smallest possible amount, *the amount of advances, as shewn by those accounts, had, as you have referred to, increased to a very enormous amount?*—Yes; I must apologize for the answer which I gave; I meant the advances when I said the notes; I meant the liability of the bank from its advances made on securities.

4942. *Chairman (Mr. Cardwell): "The mere*

act of making an advance does not render a person liable; OF COURSE THE LIABILITY IS THE OTHER WAY?—Yes.

4943. "Will you trace the process by which the banks increased their own liabilities by making advances to others?—Looking at the securities which they held from other parties by making advances to a number of merchants to a larger amount than usual, they felt that the indebtedness of these parties to them was more than was prudent.

4944. *Mr. Wilson:* "Do you mean that the banks had made undue and imprudent advances in the loan of their capital and *deposits?*—I apprehend that they thought so. * * * * *

4945. "Are you aware that during the last three or four years, the amount of the capital subscribed to the banks in New York had very greatly increased?—I do not know it of my own knowledge.

4946. "Are you aware that the amount of *deposits* had very greatly increased?—I do not know it from my own knowledge.

4947. "But it would either be from deposits, or from capital that increased advances could be made by the banks?—Certainly.

4948. "Therefore if you are aware that increased advances were made to a large extent, it must have been either from an increase of subscribed capital, or from an increase of deposits?—Yes, I apprehend so."

In the extract from the Report given above, we have shown how completely Mr. Cardwell has misconceived the nature and effects of Banking, when he says that it only uses money already existing. The very nature of Banking being to *create credit.* In question 4942, he has also shown beyond dispute, how entirely he misunderstands it. Mr. Torr had a perception of the true nature of it, for he says that the Banks increased their liabilities by their advances, which is undoubtedly true. However, Mr. Cardwell catches him up, for he says "*The mere act of making an advance does not render a person liable; of course the liability is the other way!*" The witness was so easily shaken out of his own knowledge that he weakly answers, "yes!" And then Mr. Cardwell follows up his advantage by Q. 4943. Mr. Wilson asks him if the Banks had made imprudent advances out of their Capital and *Deposit.* Why, the "deposit" is the credit created in the Bank's books! Surely we may marvel that such extraordinary ignorance of the mechanism of Banking should pass unchallenged by the Committee, who counted more than one banker among its members. At all events we may cease to wonder at the futile nature of Parliamentary inquiries into Banking, when those who conduct them display such ignorance of the facts of what they are inquiring about, as would make them the laughing stock of any bank clerk.

CARELLIUS, FRANCISCUS.

Nummorum veterum Italia quos ipse collegit, et ordine geographico disposuit descriptio. Neapoli, 1812.

Idem. Edidit C. Cavedonius; accesserunt F. M. Avellini adnotationes. Lipsiæ, 1850.

CAREY, HENRY C. The son of Matthew Carey, an Irishman, who was obliged to quit his

country from being obnoxious to the government, in 1783, was born in 1793 at Philadelphia where his father had established a newspaper, and publishing business. Mr. H. C. Carey succeeded his father in the latter business in 1821, and continued it till 1838. In 1824, he established the system of periodical trade sales, which subsists in America.

Mr. Carey is generally considered as the most eminent economist whom America has produced, and his writings in many instances have been directed against the doctrines of Ricardo.

Essay on the rate of Wages, with an examination of the causes of the differences in the condition of the labouring population throughout the world. Philadelphia, 1835.

This is a very able essay, consisting in a great part of a commentary on Mr. Senior's Lectures on Wages. It contains a great deal of useful miscellaneous information, and one of its main objects is to disprove the doctrine of Ricardo, that high profits can only come from depressed wages.

Principles of Political Economy. Philadelphia, 1837-8-40.

The first part of this work is on the production and distribution of wealth. In Chap. I. Mr. Carey treats of production, which he defines to be "an alteration in the existing particles of matter, by which that matter may be rendered more useful or agreeable, than in its present state." This, though longer in form, agrees substantially with our own definition, for he includes in it all who are engaged in either altering the form or the place of any product. He then quotes and adopts Mr. Senior's opinion that Adam Smith's distinction between productive and unproductive labor is untenable, and that all exchangeable products, material or immaterial, are Economical Elements.

Chap. II. and III. treats of Value, in which he maintains that *Labor is the sole cause of Value*, in which he follows the opinions of Malthus, McCulloch, Senior, and Ricardo, and does not introduce any novelty into the discussion. Chap. IV. is on the *Value of Land*. Chap. V. is "on the effects of the extension of cultivation upon Wages." This Chapter contains several useful strictures on Malthus and others, who have endeavoured to make out that the laborers in the 15th century were much better off than those at the present day. Mr. Carey shows how many corrections are necessary to be applied to the figures quoted, and that the condition of the people of England and Scotland has for several centuries been constantly improving, instead of getting worse, as has been so often said. This is in direct opposition to the doctrine, that profits are large and wages high only when the most fertile lands are cultivated. Chap. VI. is on the "Effect of the extension of cultivation upon the profits of Capital." In this, Mr. Carey has collected many interesting facts, and affirms, that, I. With the increase of Capital and extension of cultivation, there is an increased facility of production. II. That with this increased facility of production there is increased ability to accumulate Capital. III. That with this increased facility of accumulation, there is a diminution of the power to demand rent, or interest, and that the owner can claim, and the laborer will give, a diminished proportion of the product of labor, in

return for the use of any species of Capital. IV. That the diminished proportion of this increased product that is assigned to the Capitalist, gives him a larger quantity of the commodity produced. V. That the larger quantity that thus falls to both laborer and capitalist, is exchanged for other commodities at much less cost, as capital and production increase. The owner of the ship and of the wagon transport it to market, and bring in return the commodities desired, taking a constantly decreasing proportion for so doing. The proportion retained by the storekeeper for exchanging is also reduced, and thus everything tends to increase the quantity of necessities and conveniences that can be obtained by the laborer as wages, and by the Capitalist as profits. VI. That any given quantity of Capital is now obtained at much smaller cost of labor than at any time past. VII. That the quantity of commodities obtainable in return for permitting the use of any given quantity of capital, is greater now than it was 30, 50, 100, or 500 years since. VIII. That thus while the present reward of labor, in the form of wages, is constantly increasing, there is an equally constant increase in the reward of economy and prudence, in the diminished exertion required to secure to the laborer a future income, in the form of rent or interest.

Chap. VII. on the "Cost and Value of existing landed Capital." Contains many judicious and striking observations on colonization.

In Chap. VIII., Mr. Carey considers "objections" which may be made to the views advocated by him, and among others he says, "It may be said that labor is not invariably a cause of Value," and he quotes Mr. Senior, who says, "The fact that that circumstance (labor) is not essential to value, will be demonstrated if we can suppose a case in which value could exist without it. If, while carelessly lounging along the sea shore, I were to pick up a pearl, would it have no value? Mr. McCulloch would answer that the value of the pearl was the result of my appropriative industry in stooping to pick it up." There is no one who knows anything about Inductive Science who will not see that Mr. Senior's observation is perfectly conclusive. And what is Mr. Carey's answer? "Pearls may be found by those who do not seek them, and meteoric iron may be a gift to those who little anticipate its reception, while others may seek for pearls, or dig for iron, without profitable results. These are accidents which do not, in the slightest degree, militate against the assertion that all value is the result of labor. Nine hundred and ninety-nine out of every one thousand parts of those annually created are so, and the exceptions are too slight to be deserving of consideration? They are just sufficiently numerous to prove the rule!!"

This paragraph would alone be sufficient to prove Mr. Carey's want of scientific spirit. What person who had the slightest knowledge of Inductive Science, but would smile to hear that exceptions *prove* the rule! A fact that is totally irreconcilable with a theory is the proof of the theory! This is truly something new in Science. In the old world, facts are the tests of theories, and though 999 instances may seem to suit a theory, it is universally held that the thousandth, which does not agree with it, *disproves* it. What an admirable proof of the emission theory of

light it was to find that numerous facts could not be accounted for by it!

In Chap. IX., Mr. Carey gives us the "results" of his investigations, which we may present to our readers.

Of Value.

I. That all value is exchangeable.

II. That labor is the sole cause of Value.

III. That the value of commodities, at the time of production, is measured by the quantity and quality of labor required therefor.

IV. That with every improvement in the quality of labor, there is a diminution in the quantity thereof, required for the production of any given quantity of commodities.

V. That the value of existing capital cannot exceed that of the quantity and quality of labor required for its reproduction, and that the quantity of labor for which it will exchange tends to fall with every improvement in the quality thereof.

Of Labor.

VI. That labor, when aided by Capital, becomes more productive, and is thus improved in its quality.

VII. That every improvement in the quality of labor is attended by an increased facility of accumulation.

VIII. That this increased power of accumulating capital tends to lessen the value, in labor, of that already existing, and to diminish the proportion of the product of labor that can be demanded in return for permitting it to be used.

IX. That the proportion that can be claimed by those who transport its products, and by the storekeeper who exchanges them for the commodities required in return, is, in like manner, in a constant course of reduction, as labor becomes more productive.

X. That the laborer is thus enabled to retain a constantly increasing proportion of the commodities produced.

XI. That where population and capital are small, and where the superior soils, only, are cultivated, labour is unproductive: that the proportion claimed by the landowner is large, the cost of transportation is great, and the proportion taken by the storekeeper is so, while that which is retained by the laborer is small. He is therefore poor and miserable.

XII. That as population and capital increase, and as cultivation is extended over the inferior soils, labour becomes more productive, and there is a constant diminution in the proportion claimed by the owner of Capital, whether applied to the improvement of land, or to the transportation, or exchange, of commodities, accompanied by a constant increase in the proportion retained by the laborer, and a constant improvement in his condition.

Of Capital.

XIII. That the power to demand rent arises from labor applied to the improvement of land, and that rent and interest are alike profits of Capital.

XIV. That the aid of Capital tends to render labor more productive, thus improving its quality.

XV. That the further acquisition of Capital

is facilitated by every improvement in the quality of labor.

XVI. That this increased facility of accumulation is attended by a diminution in the labor value of all previously existing capital.

XVII. That it is also attended with a diminution in the proportion of the product of labor that can be claimed for permitting capital to be used.

XVIII. That labor is by its improvement in quality rendered so much more productive, that this diminution in the proportion claimed by the capitalist, is attended by an increase in the quantity of commodities obtained in return for the use of any given amount of capital.

XIX. That where population and capital are small, and where the superior soils, only, are cultivated, further capital is accumulated with difficulty, and its owner takes a large proportion of the product of labor in return for permitting its use; but that large proportion yields but a small amount of commodities, and thus a large quantity of labor is required to secure a given amount of income.

XX. That as population and capital increase, and as cultivation is extended over the inferior soils, further capital is accumulated with greater facility, and the proportion of the Capitalist is diminished; but that smaller proportion yields him a constantly increasing quantity of commodities, and thus a smaller amount of labor is required to secure a given amount of income.

XXI. That thus with the increase of population, and of capital, and with the extension of cultivation, there is a steady improvement in the condition of both laborer and capitalist. That the former, while enjoying a constantly increasing measure of the comforts and conveniences of life, experiences a constantly increasing facility in becoming himself a capitalist, to enjoy an equally constantly increasing measure of the conveniences and luxuries of life, in return for the industry, prudence, and integrity which enables him to become so.

"Such we believe to be the natural laws, regulating the production and distribution of wealth, that may be deduced from the experience of the world for hundreds, and thousands, of years. That they are so we feel assured, because they are like all the other laws of nature, *simple, and therefore likely to be universally true.*"

Here again, unfortunately, Mr. Carey's logic is somewhat at fault. Because all other laws of nature are simple, (which is a very doubtful assertion,) therefore, all simple laws are laws of nature. This is a simple argument, but, we fear, is not on that account a law of nature.

In Chap. X. Mr. Carey treats of "Fluctuations of Price," but this chapter is not sufficiently full. He however arrives at a very sound doctrine that, "Diminished production in any part of the world tends to diminish the quantity of commodities obtainable by the labor in every other part, while increased production in any one, tends to increase it in every other. It is therefore to the interest of all that universal peace should reign—that capital should increase—and that labor should be productive."

He also affirms that, "When the rise of money wages is preceded by a rise in the price of commodities, it arises from diminished production—

or from excess of the substitutes for money—is disadvantageous to the laborer, and temporary in its duration.

“When, on the contrary, it is accompanied by a fall in the prices of commodities, it arises from increased production—is advantageous to the laborer—and is likely to be permanent.”

The next seven chapters are occupied with examining the views of preceding economists, and comparing them with the doctrines obtained by himself.

In Chap. XI., he examines the doctrines of Malthus, and well shews his inconsistency in defining wealth as “the material things necessary, useful, or agreeable to man, which have required some portion of human exertion to produce,” and then saying that the Value of Land consists in the scarcity of that which is fertile, or possessed of advantages of situation, and that the owners derive the power of demanding rent for its use from the necessity which exists of having recourse to soils that yield a smaller return to labor. Two doctrines which, Mr. Carey justly says, contradict one another. He then enters into a long investigation to disprove Malthus's doctrine of Rent. In Chap. XII., he examines Ricardo's theory of Rent; and in Chap. XIII., he discusses the opinions of Mr. James Mill, J. B. Say, Col. Torrens, Mr. Wakefield, and Dr. Chalmers. In Chap. XIV., he reviews the opinions of Mr. McCulloch and Mr. Scrope; and in Chap. XV., those of Mr. Senior; and in Chap. XVI., those of Mr. Samuel Bailey, the author of the “Critical Dissertation on Value.” In Chap. XVII., those of Mr. Jones.

In Chap. XVIII., Mr. Carey adopts Dr. Johnson's definition of Revenue, as “Income; annual profits derived from lands or other funds.” A portion of this, he says, is expended, and the remainder being laid by to accumulate, constitutes capital.

In Chap. XIX., Mr. Carey agrees with Mr. McCulloch in his definition of Capital, and includes all articles possessing exchangeable value, the accumulated products of past labor. As we entirely dissent from this definition, we may refer to CAPITAL.

In Chap. XX., Mr. Carey endeavours to arrive at a definition of Wages and Profits, and says, “Profits are the compensation received for the use of capital, the accumulated labor of past times, while Wages are obtained by present labor, and are the reward of time, attention, talent, and often of the sacrifice of convenience, comfort, and even of health. The first is paid for the aid of things, and the last for the services of men.”

Chap. XXI. contains a general summary of Mr. Carey's doctrine; among other results he says,—

III. That as man cannot increase, or decrease, the quantity of matter of which the world is composed, he has it only in his power to alter in its form, or in its place, the matter already existing. Production, therefore, consists in the appropriation, alteration, or transportation, of the gifts of nature.

IV. That the articles so produced have value in his estimation, *because* of the labor that has been given in exchange for them.

V. That the value thus produced constitutes his revenue.

VI. That a portion of his revenue is applied to the satisfaction of present wants, and the remainder is laid by for future enjoyment, or to aid him in further production.

VII. That the portion thus laid by constitutes his Capital, under which head is embraced all articles possessing exchangeable value, whether in the form of land, houses, ships, provisions, diamonds, or commodities of any other description.

XIII. That as labor improves in its quality there is a constant tendency to diminution in the quantity thereof that can be obtained in exchange for existing Capital. The value of the latter is limited by the cost of production.

XIX. That when labor is of an inferior quality, production is small, capital is accumulated with difficulty, and the owner claims a large proportion of the product in return for granting its aid.

XXII. That as labor is improved in its quality, it becomes more productive, capital is accumulated at less cost of labor; and its owner can demand a smaller proportion of the product in return for granting its aid.

XXIII. That with every improvement in the quality of labor the quantity of commodities to be divided is increased. That then increased production is attended by the power, on the part of the laborer, to retain a constantly increasing proportion of the commodities produced. He is therefore constantly improving in his condition.

XXVI. That the interests of the Capitalist and laborer are thus in perfect harmony with each other, as each derives advantage from every measure that tends to facilitate the growth of capital and to render labor productive, while every measure that tends to produce the opposite effect is injurious to both.

XXVIII. That the interests of all nations are therefore in harmony with each other, as every measure that tends to lessen production in one nation, tends to lessen the reward of both labourer and capitalist in every other nation, and every measure that tends to increase production in one nation tends to increase the reward of the laborer and capitalist in every other nation.

XXXI. That in the infancy of society, the want of capital compels man to depend for a supply of the necessities of life upon the appropriation of those articles produced by nature without his aid, and he is compelled to roam over extensive tracts of land to obtain sufficient to support existence. He relies, exclusively, upon the superior soils.

XXXII. That he is therefore compelled to live apart from his fellow men, or to associate with them in very small communities. Population is, consequently, thinly scattered over the land. Fertile land is abundant, but he has not the means of rendering it productive.

XXXIII. That if successful in his search after food, he does not possess the means of transporting, or of preserving that which he does not require for immediate consumption. His life is, therefore, a constant alternation of waste and starvation. He is poor and miserable.

XXXIV. That with the first accumulation of capital he acquires the power of resorting to an inferior soil for subsistence. He finds that a more limited space will supply his wants; and he is

enabled to draw nearer to his fellow men, to unite with them in the division of employment, and thus to obtain their co-operation, by which the labor of all is rendered more productive.

XXXV. That with the further accumulation of capital, he brings into action soils still more inferior, and with every such change finds increased facility in obtaining the necessities of life from a diminished surface; he is, therefore, enabled to draw daily nearer to his fellow men, and daily more and more to co-operate with them, by which co-operation his labor is rendered daily more productive. This increased facility of obtaining the means of subsistence, causes a constant diminution in the proportion of the population required for the production of food, and enables a constantly increasing proportion to apply themselves to the production of clothing, shelter, and the other comforts of life.

XXXVII. That thus as Capital increases, population becomes more dense, and the inferior soils are brought into action with a constantly increasing return to labor. Men are enabled to benefit by the co-operation of their neighbours, and habits of kindness and good feeling take the place of the savage and predatory habits of the early period. Poverty and misery gradually disappear, and are replaced by ease and comfort. Labor becomes gradually less severe, and the quantity required to secure the means of subsistence is diminished, by which he is enabled to devote more time to the cultivation of his mind. His moral improvement keeps pace with that which takes place in his physical condition, and thus the virtues of civilization replace the vices of savage life.

Mr. Carey, in his first part, considered the production and distribution of Wealth, as they would naturally be, if not controlled, thwarted, and restrained by disturbing causes. These he finds in want of security to person, to property, and under these latter, Mr. Carey very properly includes all sorts of unjust interferences with the right of disposing property, protection, trade restraints of all sorts. Unproductive expenditure has also been a retarding cause. Mr. Carey then examines the differences in the quality of labor, and under this head includes credit. Mr. Carey then considers the quantity of labour, the distribution of the product between the laborer and the capitalist. All these several branches of inquiry are applied to India, France, England, and the United States. There are a vast number of curious and interesting facts collected, and on each subject the author assigns the superiority to the United States.

In Chap. IX. he considers the support of Government, which must be supported by taxation, which may assume four forms. I. A specific tax upon each individual, payable in money. II. A tax on capital. III. A tax on commodities consumed. IV. A tax on income.

The first he says is unequal and unjust. The second he says is equally injurious. The third he says is also unjust, as it tends to throw nearly the whole burden on the working classes. Mr. Carey decides that the last, or an income-tax, is the only fair method, and he evidently means that it should be levied on all incomes equally, from whatever source they come. "By such a tax every man contributes in the ratio of his

interest. The capitalist, with a large revenue, pays his share, while the laborer, with an income of two or three hundred dollars per annum, pays, as he ought, for that tranquillity, which tends to promote the growth of Capital, and to secure him a large reward for his exertions. Paying for it, he values it, and while he will be disposed to furnish the necessary contribution, he will have every inducement to watch that the quantity is not greater than is required for an economical administration. Both laborer and capitalist will feel that every dollar unnecessarily taken tends to limit their power of expenditure, or their power of accumulation, and both will have the same interest in regulating the proceedings of the government in such manner as will tend most to permit the growth of capital. They will be opposed to the maintenance of large armies, or navies, and especially opposed to wars. They will see that no advantage can be derived from foreign colonies, because these colonies, where taxation is equitably levied, cannot be made to contribute towards the payment of the cost of maintaining any government but their own.

Chap. XI. treats of the effect of taxation on wages and profits, and he arrives at results, some of which are,—

VI. That the growth of Capital is most rapid where the expenditures of government are small, and that every increase in the amount expended tends to diminish its growth.

VII. That, consequently, every measure that tends to lessen the expenditure of government, tends to increase the power of production, and to increase the proportion of the product that may be claimed by the laborer.

VIII. That every measure tending to increase the demands of government, tends to diminish the power of production, and to diminish the proportion of the product that may be claimed by the laborer.

In Chap. XII. Mr. Carey examines the revenue systems of India, France, England, and the United States.

Chap. XIII. treats of the distribution of private revenue, and Chap. XIV. treats of the social condition of Scotland and Ireland, in which Mr. Carey disagrees from Mr. McCulloch's Theory of Absenteeism. In Chap. XV., he treats of the Netherlands, Spain, Sweden, Norway, China, and Turkey.

The third Volume of this Work has not come in our way.

The Credit system in France, Great Britain, and the United States. Philadelphia, 1838.

This consists chiefly of a reprint of a chapter in the Principles of Political Economy, with a few additions.

The Past, the Present, and the Future. Philadelphia, 1848.

In his former work Mr. Carey had declared his dissent from the Ricardian theory of Rent. In this one he enters into a more elaborate refutation of it. But it is impossible not to see that he has shifted his ground. In his former one he allows that men begin by cultivating the best soils, but maintains that their returns are small because they have not the benefit of numbers and Capital

to assist them. In this work, however, he has taken up a new position altogether. In it he maintains that the first settlers in a country always begin by cultivating the inferior soils. He says that the best soils are always covered with immense trees that he cannot fell, or they are swamps that he cannot drain. These, he says, cannot be brought into cultivation till men and Capital increase. But there are always spots of an inferior degree of fertility, on the hill side for instance, where the thin soil has prevented the growth of trees and shrubs, which are always brought into cultivation first, because they afford the readiest return for labor.

Mr. Carey then (p. 17.) attacks the Ricardo theory of Rent and says, "Nearly 40 years have elapsed since Mr. Ricardo communicated to the world his discovery of the nature and causes of rent, and the law of its progress. The work by means of which it was first made known has since been the text work of that portion of the English community who style themselves, *par excellence*, political economists, and anything short of absolute faith in its contents is regarded as heresy, worthy of excommunication, or as evidence of an incapacity to comprehend them, worthy only of contempt. Nevertheless, imitating in this the action of the followers of Mahomet, in regard to the Koran, the professors, one and all, who have undertaken to teach this doctrine, insist upon construing it after their own fashion, and modifying it to suit their own views and the apparent necessities of the case; the consequence of which is, that the inquirer is at a loss to determine what it is that he is required to believe. Having studied carefully the works of the most eminent of the recent writers on the subject, and having found no two of them to agree, he turns in despair to Mr. Ricardo himself, and there he finds in the celebrated chapter on rent, contradictions that cannot be reconciled, and a series of complications such as never before we believe, was found in the same number of lines. The more he studies, the more he is puzzled, and the less difficulty does he find in accounting for the variety of doctrines taught by men who profess to belong to the same school, and who all agree, if in little else, in regarding the new theory of rent as the great discovery of the age.

"At first sight, it looks to be exceedingly simple. Rent is said to be paid for land of the first quality, yielding one hundred quarters in return to a given quantity of labor, when it becomes necessary, with the increase of population, to cultivate land of the second quality, capable of yielding but 90 quarters in return to the same quantity of labor: and the amount of rent then paid for No. I. is equal to the difference between their respective products. No proposition could be calculated to command more universal assent. Every man who hears it sees around him land that pays rent. He sees that that which yields forty bushels to the acre pays more rent than that which yields but thirty, and that the difference is nearly equal to the difference of product. He becomes at once a disciple of Mr. Ricardo, admitting that the reason why prices are paid for the use of land is that soils are different in their qualities, when he would at the same moment, regard it as in the highest degree absurd, if any one were to undertake to prove that prices were paid for oxen because one ox is

heavier than another; that rents are paid for houses because some will accommodate twenty persons and others only ten; or that all ships command freights because some ships differ from others in their capacity!"

At p. 23, he says, "It will be perceived that the whole system is based upon the assertion of the existence of a single fact, viz., that in the commencement of cultivation, when population is small, and land consequently abundant, the soils capable of yielding the largest return to any given quantity of labor alone are cultivated. The fact exists, or it does not. If it has no existence, the system falls to the ground. That it does not exist; that it never has existed in any country whatsoever; and that it is contrary to the nature of things that it should have existed, or can exist, we propose now to show."

This then, we may say, is the main purpose of this work. Mr. Carey, from a general survey of different countries, maintains that men always have, and necessarily must have, commenced cultivation on inferior soils, and when men and capital increased have then progressed to bring the best soils into cultivation. The reason for this general and sweeping conclusion is, as above indicated, because the best and most fertile lands are always covered with forest or swamp, and the inferior lands free from them. Hence settlers begin with those lands most easily attainable. The universality of this law Mr. Carey attempts to prove. This then is the basis of his theory of Rent, and as seen above it is in diametrical opposition to that of Ricardo. He also maintains that as men and capital increase, and better lands are brought into cultivation, rents rise, and population becomes better off. We shall make some observations on this afterwards.

In Chap. V. entitled, "*Man, and his Standard of Value*," Mr. Carey advocates a complete abstention of legislative interference with Banking, and shews that it has always been best managed where there has been least interference and worst where there has been most. At p. 187, he shews that he knows perfectly well that "deposits" are credits created in the bank's books, and the paradox of banking which so puzzled Mr. Cardwell, that banks create liabilities by making advances. Speaking of the Bank of England, he says, "People do, however, require protection against the exercise by the Bank, of the vast power confided to it, by means of which it is enabled to purchase securities, passing the amount to the credit of their owners, and calling them 'deposits'; by which operation prices are forced up, the rate of interest is diminished, capital is made to appear superabundant." Also, p. 189, "Its 'deposits' have grown with the increase of its investments. Such success emboldens it to repeat the operation, and another million is purchased, with similar results. It obtains the bills, and the owners obtain credits on the books of the Bank, which thus runs in debt, and the more debt it contracts the more means it appears to suppose itself to have at command. With the second million prices have risen; and with the third they rise still higher, and so on with each successive million. Capital appears superabundant, because the former owner of these millions of securities is seeking for profitable investments,

when the real superabundance consists only in *debts* which the Bank has incurred."

Mr. Carey then enters into considerations of a social nature, into which we cannot follow him, and has a chapter on *Colonization*, which contains much that is good.

The Slave Trade, domestic and foreign, why it exists, and how it may be extinguished. Philadelphia, 1853.

The harmony of interests, Agricultural, Manufacturing, and Commercial. New York, 1852.

Letters on international copyright. Philadelphia, 1853.

Letters to the President on the Foreign and Domestic policy of the Union, and its effects as exhibited in the condition of the people and the State. Philadelphia, 1858.

Answers to the questions; What constitutes Currency? What are the causes of unsteadiness of the Currency? And what is the remedy? Philadelphia, 1840.

In answer to the first of these questions, What constitutes Currency? Mr. Carey says, "Currency consists, I. Of gold and silver coin or bullion. II. Of the engagements of individuals, or of associations of individuals, to deliver on demand given quantities of money. These engagements exist in the form of circulating notes, or in that of credits, commonly called *deposits*, transferable by means of checks or drafts. * * *

"To constitute gold, silver, bank notes or deposits, a part of the currency, it is necessary that there should exist power to apply the same *directly* to the purchase of commodities, and to the fulfilment of all contracts for the delivery of money.

"Gold or silver in the possession of individuals who are not permitted to use it, ceases to constitute a part the currency.

"A note, or certificate of deposit, payable at a future time, whether by an individual or a bank, is not currency."

Whether this distinction is tenable or not we have examined under CONTINUITY, LAW OF, and CURRENCY.

He concludes that *Currency is Capital seeking investment*, a definition which will strike our readers as somewhat strange.

Mr. Carey advocates the abolition of all restraints on Banking.

Principles of Social Science. Philadelphia, 1858. This work contains a *résumé* of Mr. Carey's doctrines which he published at various times in his preceding ones. We may consider it therefore as his matured system. There is not much that is absolutely novel in it, but it is mixed up with such a strong infusion of mysticism, as to render it in many parts almost unintelligible. In his earlier writings Mr. Carey was an ardent and enlightened Free Trader, but in this work he has become a thorough Protectionist. A very rare instance we should imagine of such retrograde progress. The author has imbibed a perfect abhorrence of everything British. Throughout the whole course of his work he seeks every occasion to exalt Colbert and the French system, and to cry down England and the English system of Free Trade, which he looks upon as a deliberate attempt on the part of England to keep down every other nation.

Mr. Carey is the boldest and most original speculator in Political Economy that America has

produced, and some of his countrymen consider him to have effected a revolution in the science. If we conceived such an opinion to be true, we should gladly endorse it. But we are very far indeed from being able to do so, and his later productions are mingled with so much mysticism as to be beyond the reach of comprehension.

Mr. Carey's system is built upon the doctrine that *labor is the sole cause of value*, a dogma which he holds in common with the whole of the second school of Political Economy.

The absurdity of this doctrine was pointed out long ago by Dr. Whately, who shewed that pearls are not valuable because men dive for them, but men dive for them because they are valuable.

According to the doctrine that labor is the sole cause of value, which is strenuously advocated by Mr. McCulloch, a diamond is valuable because it is picked up. A fine diamond lying on the ground has no value until it is picked up, and it is the act of picking it up which gives it its value!

Mr. McCulloch maintains that the increased value due to the fermentation of wine in a cellar is to be considered as labor! (*Note I to the Wealth of Nations.*)

Mr. Carey says that we value the product in proportion to the intensity of labor bestowed on producing it. Thus he, with the second school of Political Economy, makes the labor precede the value.

We reply that it is manifestly exactly the reverse. We labor to obtain a thing very much *because* we want it very much. The *desire* must in all cases precede the labor. We do not bestow much labor on a thing and then suddenly find out it has great value, but we must clearly desire a thing very much, *before* we bestow much labor on it.

A person in London learns that there are some magnificent ruins in Upper Egypt, and he lays out much money and gives himself much trouble to go and see them. Is it not clear that he must desire intensely to see them *before* he lays out so much money and trouble in going to see them?

And it is clear that this law is universal; it is manifest that *Value is the cause of labor*. It is because a thing is desired by the producer, or because he knows that some one else desires it, or because he expects that he can inspire a desire for it, that he bestows labor in producing it. If there be no demand for a thing, and if none can be created, it can have no value, whatever labor be expended in producing it.

It is perfectly clear, therefore, that *Demand is the sole cause of Value*.

Thus the whole foundation of Mr. Carey's system of Political Economy is cut away. Labor is the *accident*, and not the *essence* of Value, as Dr. Whately said in 1831, and Bastiat in 1850. (PRELIMINARY DISCOURSE.)

The chief point, however, of novelty, upon which Mr. Carey's reputation rests, is his Doctrine of Rent. It is well known that Ricardo's Theory of Rent is founded upon the assertion that the best lands only are cultivated, and that no rent is paid for them; that as population increases, inferior lands are required to feed them; that rent then commences, and is the difference between the cost of cultivating the best and the next best land. In a similar manner, when land of the third quality

is required rent commences on the second, and so on; and then rent is defined to be the difference between the cost of cultivation of the different qualities of land.

Now, for this theory of Rent to be true, it is essential that men should begin to cultivate the best soils, and that there should be a difference in the qualities of soils. If men did not begin upon the best soils, or if there were no difference in the qualities of soils, there could be no such thing as rent.

Mr. Carey challenges, as well he might, an assertion of so general a nature, and says that men firmly believe in this theory of rent who would deem it the height of absurdity to say that a price was paid for cattle because some were better than others; or, as we might say, it would be equally ridiculous to say that hire was paid for horses because some horses are better than others; and to define the word hire to be the difference of cost of rearing the best and the next best horses.

Between Mr. Carey's first publications and his last, there is a considerable difference in his theory of Rent; but as he has declared that he has abandoned his first theory, and adheres to his second, we shall of course only examine that one.

Mr. Carey then maintains the exact reverse of Ricardo. He maintains that men invariably commence on inferior soils, and work their way to better ones. The reason of this is that the best soils are always covered with timber, or swamps, which a scanty and poor population, as the first inhabitants of a country always are, have neither time nor instruments to clear. He says that the inferior soils are the most free from timber, and the most easily cleared, and that men always begin with these and gradually extend their cultivation to the better soils as their numbers and capital increase.

Mr. Carey maintains the necessary universality of this course, and he has taken a wide survey of the history of nations in different ages, in all countries of the world, to prove its truth.

Now Mr. Carey has undoubtedly so far succeeded as this. He has certainly completely overthrown the basis of Ricardo's Theory of Rent, which depends on the universality of men occupying the *best* land first. It is indubitably true that in a great many cases men do begin with the light middling soils first. And this is all that is required by the laws of Inductive Science to overthrow the generality of Ricardo's Theory. But to assert as a necessary, invariable, and universal law, that men do and must in all cases begin by cultivating the inferior soils is preposterous. In multitudes of cases men did begin cultivation on the best soils. It has often been remarked what a keen eye for good land the monks had. In multitudes of cases the monasteries will be found placed in the centre of the richest and best lands.

Now if there are abundance of cases, as there undoubtedly are, in which men began by cultivating the best lands, that is fatal to the generality of Mr. Carey's theory, just as the instances which he has adduced of men beginning on the light middling lands are fatal to Ricardo's theory. Each of them has perilled his theory on the universality of a particular course of proceeding.

From every general theory all accidental and particular circumstances must be eliminated. The particular state of the case as asserted by Ricardo is sometimes true, and the particular state of the case as asserted by Mr. Carey is also sometimes true; and therefore it is clear that neither is true as a general theory. A true general theory must include them both.

We have endeavoured to exhibit a true general theory of Rent (*Rent*) which is quite independent of the particular assumptions either of Ricardo or Mr. Carey.

The next point of novelty which Mr. Carey claims to have brought forward is, that it is not cost of production which regulates value, but the cost of *reproduction*. The first capital he says is produced at a great cost of labor. But that capital facilitates the production of fresh capital, and the value of the first will immediately fall to the cost at which it can be reproduced. There is much plausibility in this view, but it is easy to shew that like the law that Cost of Production regulates Value, it is only a modification of the law of supply and demand in particular cases.

On the subject of Banking, Mr. Carey shews that he understands its mechanism, and that *Deposits* are the credits, or the debts, created in the bank's books, and that they are created by the discount of bills.

He justly includes Bank Credits, or Deposits, as well as Bank Notes, as Currency. He excludes Bills and Notes payable after date from the Currency; because, says he, these are contracts to pay money, and therefore a contract to pay money cannot be the same thing as money itself.

But he seems to have forgotten that Bank Notes and Bank Credits are *contracts* to pay money, and yet he admits them to be currency!

Moreover, Bills and Notes payable in *future* are payable on demand, like Bank Notes and Cheques, on the day they mature, consequently they answer the definition of Currency on the day they mature. How can a thing which is not currency one day become currency the next? This is manifestly a violation of the law of Continuity. (*CONTINUITY, LAW OF*).

In his earlier works Mr. Carey was an ardent advocate for Free Trade. In his later ones, a complete change has come over him. He draws some extraordinary distinction between Trade and Commerce, which to us is wholly unintelligible.

But perhaps the most astounding paradox which Mr. Carey has produced is his new theory of money, propounded in his last work. (*Principles of Social Science*. Vol. II., p. 327.) Economists have hitherto considered that an excessive quantity of gold would diminish its value, and make things dearer. It has also been universally held that money will naturally go to where it is most valuable, i.e., to where, *ceteris paribus*, the rate of interest is highest. If there is one law more than another which Economists consider to be proved by reason and universal experience, it is that Bank Notes drive out coin of the same denomination. Mr. Carey maintains the exact reverse of all these propositions; he says that the increase in the supply and circulation of money, so far from having the effect of causing men to give two pieces of money for an article that could before have been had for one, has, on the

contrary, that of enabling them to obtain for one piece the commodity that before had cost them two!

If this be so, what remarkably cheap places Australia and California should be! How wonderfully the prices of all commodities must have fallen since the gold discoveries of the 16th century!

If money naturally flows to where the rate of interest is lowest, why does not every commodity naturally go to where it is cheapest?

If Bank Notes have the effect of attracting instead of repelling coin, what floods of gold must deluge the Western States of America! Scotland should be at this moment labouring under a plethora of gold!

What can we say to such paradoxes as these? They are simply Political Economy turned upside down.

Upon the whole then, although Mr. Carey's works contain many important observations, and much valuable information, we regret that we can by no means assign such a high place to him as a scientific writer, as his admirers claim for him. Many of his observations, no doubt, expose the erroneousness of what was too readily believed, but the facts accumulated are heaped together in too crude and indigested a form to be of much scientific value. The basis on which his whole system rests—that *labor is the sole cause of Value*, is most manifestly erroneous (*LABOR; VALUE.*) His doctrines of Rent and Currency are examined under those articles.

CARGILL, WILLIAM.

The Currency; shewing how a fixed gold standard places England in permanent disadvantage in respect to other countries, and produces periodical domestic convulsions. London, 1845.

An examination of the origin, progress, and tendency of the commercial and political confederation against England and France, called the Prussian League. Newcastle, 1840.

CARITAT. See CONDORCET.

CARLEN, NILS.

Statistik öfver Skaraborgslän. Mariestad, 1853.

CARLI, GIAN RINALDO, Count, one of the most celebrated Italian authors, Economists, and administrators of the 18th Century, was born at Capo d'Istria on the 11th April, 1720. His literary and scientific talents displayed themselves at a very early age. After having studied physics at Hambro, in Friuli, he was sent to Padua to learn Greek, Hebrew, and Jurisprudence, in his 19th year, when he had already attained reputation as a writer, and he was immediately admitted into the Academy of the Ricovrati. In his 21st year he had already begun to write on the subject in which he afterwards principally distinguished himself,—money. He published a pamphlet, in which he corrected some errors into which Muratori had fallen. He bestowed much attention on the ancient dramatists, and composed some plays himself.

In 1744, when he was in his 24th year, the Venetian Senate created a chair of Astronomy

and Navigation for him at Padua, and gave him the superintendence of the arsenal and navy of Venice. He immediately introduced improved models of ships of war, which were very successful.

His fame was now so great that he was elected President of the Academy of the Ricovrati. In 1747 he published his *Dissertazione sull' impiego del danaro*, which laid the foundation for his subsequent great work on the Coinage.

In 1751, he lost his wife, which preyed so much on his spirits that he resigned his professorship, and returned to Istria with the naturalist Vitaliano Donati. They travelled together to the ruins of Pola, which he afterwards described in his work on the antiquities of Italy. Carli also edited his friend Donati's work on the Natural History of the Adriatic, after his death.

He now devoted his entire attention to his great work on Coinage, which occupied him nine years. The first part was published in 1754, and the last in 1760.

In 1765, Kaunitz and Firmian invited him to Vienna, where he was appointed President of the Supreme Council of Political Economy. But as this did not occupy his time, he was made Dean of the Tribunal of Studies at Milan, where he went to reside.

In 1771, he edited Verri's *Meditations in Political Economy*, with notes, and was appointed President of the Royal Ducal *Magistrato Camerale*. This board consisted of Beccaria, Frisi, the two Verri, besides himself, and it introduced immense reforms into the administration of the Milanese. At Carli's suggestion the Inquisition, which had existed for centuries at Milan, was abolished. The Council effected a complete reformation of the coinage.

In 1780, he was struck by an illness which eventually proved fatal to him. He was relieved from his duties, and at first he was allowed to retain his full salary, but in the following year, a general law of the Empire reduced it to two thirds. Carli does not seem to have been a good manager, and this reduction of his pension left him in great distress. He then produced his work on Italian antiquities. In 1790, his friend, Leopold of Tuscany, became Emperor and restored his pension. He died on the 22nd of February, 1795.

Carli's works were published in a collected form in 18 volumes 8vo, Milan, 1784-94, the first eight of which contain his Economical writings.

Vol. I. *Parere sull' impiego del Danaro.*

Ragionamento sopra i Bilanci Economici.

Riflessi sul libero commercio de' grani.

Il censimento di Milano.

Saggio politico ed Economico sopra la Toscana, fatto nell' anno 1767.

Vol. II. *Delle monete, e dell' istituzione delle zecche d'Italia dell' antico, e presente sistema di esse, e del loro intrinseco valore, e rapporto con la presente moneta. Dalla decadenza dell' Imperio sino al secolo XVII.*

Vol. III. *Ricerche storiche intorno all' istituzione delle zecche d'Italia dalla decadenza dell' Imperio sino al secolo XVII.*

Vols. IV. & V. *Delle monete coniate e poste in uso in molte zecche d'Italia, quintori l'intrinseco valore di esse sino al secolo XVII.*

Vol. VI. *Delle antiche et moderne proporzioni de' metalli monetati particolarmente in Italia.*

Vol. VII. *Del valore e della proporzioni de' metalli monetati con i generi in Italia prima della scoperta dell' Indie, col confronto del valore, e della proporzione de' tempi nostri.*

Della giusta creduzione, o ragguaglio delle antiche monete sino al secolo XVII, con le correnti nelle principali città d'Italia.

Estratto delle osservazioni sul regolamento delle monete che si ritrovano nel Tomo III dell' opere intitolati, De l'administration des Finances de la France, par M. Necker, con le annotazioni.

Vol. VIII. *Osservazione preventive al piano intorno alle monete di Milano.*

CARLIER, CHARLES. L'Abbé; born at Verberie in 1735, died Prior of Andresi, 23rd April, 1785. A prolific writer on natural history, especially in connection with rural economy.

Mémoire sur les laines, 1755.

Traité sur les manufactures des laineries.

Dissertation sur l'état du commerce en France sous les rois de la première et de la seconde race. Amiens, 1753.

CARPI, LEONE.

Alcune considerazioni economiche sulle imposte, sul debito pubblico, sulla tassa delle rendite. Torino, 1850.

Del credito, delle banche e delle casse di risparmio ne' loro rapporti coll' agricoltura. Torino, 1857.

CARREL, ARMAND, A celebrated leader of the Republican party in France, was born at Rouen, 8th August, 1800. He entered a cavalry regiment at 17, and two years afterwards changed into the 29th regiment of infantry. When the French invaded Spain in 1823, Carrel joined the constitutional party and fought against his countrymen. He was captured and tried twice by court martial and sentenced to death; the sentence in each case was quashed for informality. He was tried a third time and acquitted. He then became secretary to Augustin Thierry; but he soon left him and commenced writing independently. In 1830 the *National* was started, with Thiers, Mignet, and Carrel as editors. This paper contributed greatly to bring about the revolution of July, 1830. Carrel's colleagues formed part of the new government, and he then conducted the paper alone, and raised it and himself to an extraordinary height of power. In 1836 he was led into a quarrel with Emile de Girardin, the editor of the *Presse*. A duel was the result, in which Carrel was mortally wounded, and he died on the 24th July, 1836. His funeral was attended by a crowd of the most distinguished deputies and men of science. For an appreciation of this remarkable man see Mr. Mill's *Dissertations and Discussions*.

Œuvres littéraires et économiques recueillies et annotées, par M. Charles Romey. Paris, 1853.

CARRAZA, ALPHONSE. A Spanish advocate, who lived at Seville and Madrid, at the end of the 16th century.

El ajustamiento y proporción de las monedas de

oro, plata y cobre, y la reduccion de estas metales a su debida estimacion son la regalia singular de Espana. Madrid, 1628.

Rogacion al rey D. Felipe IV. y a sus supremos concejos de justicia y estado en detestacion de los grandes abusos en los trajes y adornos nuevamente introducidos en Espana. Madrid, 1836.

CARRIERE, M.

Beleuchtung der statistischen details über Oesterreichs Militair Macht. Leipsig, 1856.

CARRION NISAS M. H. F. ELIS, MARQUIS, born at Montpellier 17th March, 1767, died there in 1841.

De l'organisation de la force armée en France, considérée particulièrement dans ses rapports avec les autres institutions sociales, les finances de l'état, le crédit public. Paris, 1817.

CARRION NISAS, A. H. F. V. Son of the preceding, born in 1794, returned to the constituent assembly in 1848, by the department of the Hérault.

Principes d'économie politique. Paris, 1824.

CARTER, RICHARD.

A proposal for setting a perpetual assurance on lives, and for advancing the credit of £10 lottery tickets. London, 1712.

Reasons for raising the £1,400,000 by a lottery of 40s. a ticket, and not by a £10 lottery. London, 1720.

A scheme for raising three millions for the service of the year 1712. London, 1711.

Several proposals to raise money by sundry and different methods. London, 1711.

CARTIER, ETIENNE.

Revue de la numismatique Française. Blois, 1836.

Recherches sur les monnaies au type Chartrain. Paris, 1846.

Dernières observations sur les monnaies au type Chartrain. Blois, 1849.

CARY, JOHN, Merchant of Bristol. Mr. Cary was evidently a person of some mark in his own day, as we have met with his name several times in the literature of the end of the 17th century. Some of his works were published by the request of influential parties. But we regret that they are full of the exploded commercial fallacies of that day. There is one which contains passages of great importance in the theory of the Currency, from which we have made quotations below. We have not been able to discover any details of his life.

An account of the proceedings of the Corporation of Bristol, in execution of the Act of Parliament for the better employing the poor of that City. London, 1700.

A discourse concerning the East India trade, shewing it to be unprofitable to the kingdom of England. London, 1696.

A discourse concerning the trade of Ireland and

Scotland, as they stand in competition with the trade of England. London, 1696.

A discourse on the advantage of the African trade. London, 1710.

A discourse of trade and other matters relative to it. London, 1745.

This work was translated into Italian by P. Genovesi in 1764, and into French, by Butel-Dumont in 1755.

An essay on the coin and credit of England as they stand with respect to its trade. Bristol, 22nd October, 1696.

At the beginning of William III.'s reign the silver coinage, which was then the sole legal tender, and in reference to which the course of exchange was computed, had fallen into a very disgraceful state. It continued to get worse, till, in the beginning of 1695, guineas had risen to 30s., the exchange with Holland had fallen 25 per cent., and the Irish exchange in a similar proportion. After many ineffectual attempts at remedying this by legislation, a general recoining of the silver money was effected (COINAGE), which rectified the exchanges, and reduced the price of guineas. In May, 1696, the Bank of England stopped payment, which soon sent its notes to a heavy discount. This crisis is of a very considerable importance, as it is alluded to in the Bullion Report. (BULLION REPORT § 49), but unfortunately that passage is full of the most serious chronological errors, which render its arguments invalid. The first thing to be done is to ascertain at what time guineas rose and the exchange fell, at what time guineas and the exchange were restored to par, and when Bank Notes were restored to par. After some remarks shewing that the value of the silver coins depended solely on their weight and fineness, and not upon their name, as so many persons have imagined, and that an ounce of silver in bullion must always be equal in value to an ounce of silver in coin, there being no charge for coinage, he says, p. 12—

"But all this is a jest, for no nation esteems silver but for its weight and fineness; and though the money of some countries may not agree with ours of the same denomination in either, yet the exchange sets that right. Thus the French crown (called here six shillings, or three livres) hath not usually been worth in exchange above 56 of our pence; now should any man be so imprudent to bring it thence, and expect to pass it here for six shillings, because 'tis called so there, he would soon see that neither our goldsmiths nor traders would take notice of the denomination; on the other side, should any one carry the English crown to France, because 'tis there worth above three of their livres, vulgarly six shillings, he would find no more advantage, either in buying of goods, or remitting it home again, than he might have made by exchange. When our coin was corrupt and base, all exchange rose upon us, but now (i.e. 22nd October, 1696) it is returned to its ancient standard, exchange returns to its old course; not that the standard of our money is always the exact rule of our exchange, the balance of our trade often causes it to alter, either to an advantage, or to our loss, besides the charge of management. But this is little in comparison with the other; a familiar instance we have in the case of Ireland, where, whilst our coin was base, seventy pounds was worth one hundred pounds here, which

was in some measure proportionable with the value of pieces-of-eight (which they took in Ireland) by weight to our clift money, and also to our guineas at 30s. per piece, and how far this carried the trade of England into that kingdom, the traders to the West Indies have been too sensible. But since the error of our coin hath been corrected, that very exchange is so much varied, that one hundred pounds here is worth one hundred and fifteen pounds there.

"And since I have mentioned guineas, I cannot let them pass without some observations; how eager was the contest for keeping them up to that exorbitant value? Whereas it was well known that the reason why guineas were so high was the badness of our coin. Gold doth not receive a value from the stamp, but whether in the mass, or in the coin, its weight and fineness are to be regarded; the standard of both in England is the same, being twenty-two carats of finest gold, one carat of finest silver, and one carat finest copper. The guinea is five dwt. eight grns. which at the price of four pounds per ounce (when money was at its full standard and weight) came to 21 shillings and 4 pence, but when our coin was so corrupted, that 30s. contained no more silver than 21s. 4d. formerly did, 'twas necessary guineas should rise, to put them on an equal basis with silver. On the other side, when the current coin of the kingdom came to be rectified, and 2s. 4d. contained the same quantity it formerly did, guineas must as necessarily fall, because their value did not arise from their denomination, but from a proportionable standing of their weight in competition with the weight of silver. And, by the way, it is to be observed that guineas at 22s. (as now allowed to pass by Act of Parliament) are worth eight pence per piece, or 3 per cent. more than standard gold in the mass will yield at four pounds per ounce."

Thus we find it is established as a chronological fact, that the exchanges were rectified at latest by the 22nd October, 1696, as that is the date of the publication of the pamphlet, probably some time before. The last paragraph we have quoted seems perhaps of little importance yet it was the cause of the substitution of gold instead of silver as the legal standard in England.

Mr. Cary also says p. 17, "One thing more I would observe to these Gentlemen in their own dialect, that as our coin grew bad, so standard silver rose in its price, those who had it demanding 6s. 6d. to 7s. per ounce of the then current coin of the Kingdom, the reason of which is plain from what hath been said before."

Mr. Cary also shews that he knew a fact which is of great importance in the theory of the Currency and Exchange, and which was fatal to the mercantile theory of his day. That theory supposed that money was the only wealth, and that the great object of legislation ought to be to encourage the import of money by every possible means. Now it is well known that money and bullion is the least profitable of any merchandize, and merchants never resort to it when they can help it. He says p. 19, "before a due consideration we find that as nothing but the balance of our trade brings it in, so nothing but the balance of our trade with particular places carries it out, neither of them proceeding from the choice of the

merchant, who desires rather to trade in any other merchandize, silver neither answering freights or insurances, and therefore it is that our merchants bring home from Spain, all the wines, fruit, wool, iron, cochineal, they can get, and whatever else is fit to load their ships, before they meddle with money, but the balance of our trade with Spain being so much in our favor, that all the product thereof cannot make it good, we are obliged to bring home the rest in bullion."

An essay on the state of England in relation to its trade, its poor, and its taxes for carrying on the present war against France. Bristol, 1695.

An essay towards regulating the trade, and employing the poor of the Kingdom. London, 1717.

An essay towards the settlement of a national credit in the Kingdom of England. London, 1696.

A proposal for paying off the public Debts by erecting a national credit. London, 1719.

A proposal offered to the Committee of the House of Commons appointed to consider of ways for the better providing of the poor. London, 1700.

A proposal to raise £150,000 per annum, and to give employment to the poor. London, 1701.

Some considerations relating to the carrying on the Linen Manufacture in the Kingdom of Ireland by a joint stock. London, 1704.

CARY, THOMAS GREAVES.

The dependence of the fine arts for encouragement in a republic on the security of property, with an inquiry into the causes of frequent failure among men of business. Boston, U. S., 1845.

Letter to a Lady in France on the supposed failure of a national bank, the supposed delinquency of the national government, the debts of the several states and repudiation. Boston, 1844.

A practical view of the business of banking. Boston, 1845.

Profits of manufactures at Lowell. Boston, 1845.

CARY, WALTER.

The present state of England expressed in this paradox—Our Fathers were very rich with little, and we poor with much. London, 1626.

CASALIS, GOFFREDO.

Dizionario geografico, statistico, commerciale; degli stati di S.M. il Rè di Sardegna. Torino, 1833.

CASAVIANE, SIMON LEON.

Contrat de la Banque générale de bienfaisance et de circulation commerciale. Paris, 1800.

CASAUX, CHARLES DE, MARQUIS.

Considérations sur quelques parties du mécanisme des sociétés. Londres, 1785—88.

Discours sur l'abolition du droit paternel de tester vivement recommandée par les économistes. Paris, 1789.

Absurdité de l'impôt territorial, et de plusieurs autres impôts, démontrée par l'exposition des effets ou réaction des différentes espèces de taxes sur

tous les prix, tant du travail, que de ses produits, soit dans l'agriculture, soit dans l'industrie. 1790.

Considérations sur l'effet de l'impôt dans les différents modes de taxation. Londres, 1794.

CASH CREDIT. A *Cash Credit* or *Cash Account* is a permission granted by a Bank to a Customer to draw upon it to a certain limited amount, at such times, and in such sums as may suit his convenience. He may pay in day by day such sums as he pleases, and interest is charged only on the daily balance of the account.

A *Cash Credit* is, therefore, simply a drawing account, created in favor of a customer, upon which he may operate in precisely the same manner as a common drawing account. The only difference being that instead of receiving interest upon the daily balance at his credit, he pays interest upon the daily balance at his debit. It is thus an *inverse* drawing account.

The system of *Cash Credits* is one of the distinguishing features of Scottish Banking, and will deserve our closest attention, as it will shew the immense advantages of a judicious and well managed system of credit to a country. It is, moreover, entirely of the nature of *accommodation paper*, which has acquired such a disreputable notoriety in commerce. It will also serve to bring out and test the loose and vague and contradictory notions on *Credit* which are current in works on Political Economy.

The system of *Cash Credits* sprung from the peculiar constitution of the Scotch Banks. Most of the great foreign Banks were mere Banks of Deposit, and did nothing but create credit in exchange for bullion deposited with them, which they professed to keep locked up in their vaults. The Bank of England itself was at first limited in the amount of its issues to the sum it had advanced to government, and issued no notes under £20.

But the Bank of Scotland had unlimited powers of issue both in amount and denomination; it received no deposits at first from the public, but on the security of money paid in by its Shareholders it issued as many notes as it could in the discount of Bills of Exchange. These notes were at first for £100, £50, £10, and £5. For some time it issued no notes below £5, although it had many proposals to do so. John Law tells us that its notes in circulation very soon amounted to five times the amount of the cash in the Bank, which he very justly says was equivalent to the creation of so much additional money. At length, however, either in 1699 or 1704, for the accounts differ, and it is not easy to decide between them, they commenced the issue of £1 notes.

Now the issue of £1 notes has a very much more powerful effect in commerce, than the issue of higher denominations of notes.

It has been supposed sometimes that notes of a large amount do not drive coin out of circulation. But this is an error. It is perfectly clear that the use of any instrument of credit, whatever its nature or amount may be, supersedes the use of coin to that extent, in that transaction, and releases it and renders it applicable to other purposes either of internal or external use. It is, therefore, a *bonâ fide* augmentation of capital. Though, of course, the instrument of credit may

be subsequently unpaid, and, therefore, it is *precarious*, and the other is not.

But after all, the transactions in which large instruments of credit are used, are comparatively few compared to the enormous multitude of those in which coin is used. Consequently if an instrument of credit like a Bank Note of the same denomination as the coin, is put into circulation to an unlimited extent, it entirely supersedes and displaces coin. The metallic currency is exported, because the notes,—a cheap instrument—are equally efficacious at home, and the money, being an article of merchandize of general value, is sent abroad to purchase foreign commodities.

The effect, therefore, of issuing notes of the denomination of the coin is much more powerful than that of any other form of credit, and as it is more powerful, it is more liable to danger and abuse.

The effects of the issue of £1 notes by the Bank of Scotland were very soon seen. Specie disappeared from the country, and some contemporary writers say that the suspension of cash payments in 1704 was due to this cause.

In 1727, the Royal Bank was founded, and the system of cash credits is said by some authorities to have been invented by it, and by others by the Bank of Scotland.

These companies being in the warmest rivalry, racked their invention to devise some new methods of putting their notes into circulation. The field of commerce in Scotland was at that time extremely limited, and consequently the number of Bills of Exchange to discount was comparatively small. The banks therefore found themselves with a superfluity of credit, as we may say, on hand, and tried to devise some means to get it into circulation.

Cash credits are applicable to a totally different class of transactions from those which give rise to Bills of Exchange, and we may now explain their nature rather more fully.

Every man in business, however humble, or however extensive, must necessarily keep a certain portion of ready money by him to answer immediate demands for small daily expenses, wages, and other things. This could of course be much more profitably employed in his business, where it might produce a profit of 15 to 20 per cent., instead of lying idle. But unless the trader knew that he could command it at a moment's notice, he would always be obliged to keep a certain portion of capital unemployed. The trader must always keep a certain portion of ready money in his own till, or he must be able to command the use of somebody else's till. Now one object of a cash credit is to supply this convenience to the trader, to enable him to invest the whole of his capital in business, and upon proper security being given, to furnish him with the accommodation of a till where he may obtain ready money, at a moment's notice, in such small sums as he may require, on his paying a moderate interest for the accommodation.

So also they are frequently granted to lawyers, or writers to the signet, commencing business, who have occasion for ready money from day to day, to make many small payments. Now, if it was not for the facility thus created by the bank, a young man commencing business as a writer to the

signet, or solicitor, would require to be furnished with actual money, either of his own, or supplied by his friends, and it is a greater advantage to them to have it supplied merely by a guarantee, a mere contingency which they never would give if they thought there was any danger of its being enforced.

But the national advantages of the cash credit system have been, if possible, still more strikingly displayed in the prodigious stimulus it gave to the agriculture of Scotland during the last century. They have, indeed, been one of the main causes of making it what it is. In the Scottish system of farming, leases almost universally prevail, and a farm is not entrusted to the hands of a man who is not educated to his business. He usually enjoys nineteen years security of tenure; or where leases are granted for the purpose of reclaiming land, they are frequently longer than that. Now supposing a farmer who is known to be active, skilful, and industrious, obtains a farm on lease, he may go to the bank, and upon the security of his lease and some friends who become bound for him, the bank grants him a cash credit. He is able to invest the whole of his own capital in improving the land, and obtains any temporary advances he requires to make immediate payments with, from the bank. When harvest is gathered, he repays the bank with interest, makes a profit for himself, and adds to the capital of the nation.

This system originated with the power of creating £1 notes, which, in that country where the banks enjoyed such high credit, was exactly equivalent to the augmentation of actual money, and produced exactly the same effects in increasing the agriculture and commerce of the country as so much actual money.

The testimony of every one who has any experience of Scotland is unanimous in favor of the remarkable effects this system has had in promoting the prosperity of the country, and the morals and conduct of the people. It is no exaggeration whatever but a melancholy truth, that at the period of the revolution of 1688, and the establishment of the Bank of Scotland, that country, partly owing to such a succession of disasters as cannot be paralleled in the history of any other independent nation, and partly owing to its position in the very outskirts of the civilized world, and far removed from the humanising influence of commerce, was the most utterly barbarous, savage, and lawless kingdom in Europe. Though we may parenthetically observe that it may be mentioned to the immortal honor of this poor, savage, and barbarous country, that it was the first to receive and propagate the Newtonian Philosophy, and send missionaries to teach it at Oxford, a whole generation before there was a single convert to it in France. And it is equally undeniable that the two great causes of her rapid rise in civilisation and wealth were her systems of national education and banking. What the Nile is to Egypt, that is the banking system to Scotland, and it was fortunate for her that the foundations of her prosperity were laid broad and deep before the gigantic fallacy was dreamt of, that the issues of banks should be inexorably restricted to the amount of gold they displace.

The preceding remarks will suffice to explain to our readers the general nature of cash credits.

The effect they have produced on the morals of the people is described by the witnesses before the Committee of the Lords, in 1826, as having been very remarkable. At that time it was conjectured that there were about 12,000 cash credits granted to persons in Scotland, and as the average number of sureties was three, there were supposed to be about 40,000 people interested in the integrity, prudence, and success of each other. Mr. Kinnear said the banks very rarely suffered loss by small cash accounts. The magnitude of the operations carried on by means of cash credits in Scotland may be inferred from the statement of Mr. Sandeman, who said that during 21 years that he was connected with a provincial bank at Perth, the operations amounted to from 80 to 90 millions, and there was no loss except on one account to the amount of £200.

The advantage to the person who has a cash credit is that he only pays interest from day to day, on the sum he actually has at his debit, whereas, in discounting a Bill of Exchange he pays interest on the whole amount of his credit, whether he uses it or not, and discount is besides more expensive than interest. (DISCOUNT.) The bank, therefore, would naturally prefer to employ its resources by way of discount, rather than cash credit, if it could. There is also a further disadvantage attending them, that they cannot be called up on a sudden emergency, and if there be a run on the bank, the security cannot be negotiated like a Bill of Exchange. It is, therefore, only where a bank has a superfluity of credit, which it cannot employ profitably, that it would resort to a cash credit, and also where there is but a very slight chance of a run upon it.

For these reasons cash credits have always been looked upon with a very unfavorable eye by London bankers, who must always keep their funds well in hand. And for very good reasons. In the first place their credit is not so solid and well established as that of the principal Scotch banks.—They do not issue circulating credit in the form of notes.—They can always find employment for any superfluous cash they may have.—And they are more liable to runs.

Even in Scotland itself we believe cash credits are not so prominent a feature of business as formerly. Commerce has increased wonderfully, and consequently there is more employment for their resources in discounting bills. But though their relative importance may diminish, we must never forget the important part they have played in the advancement of the country. Scotland itself, like many an industrious young man, has begun with credit, and by zealous industry has accumulated solid capital.

The system of cash credits is of course only one department of the mighty system of credit, the most controverted and the least understood part of Political Economy. For a full examination of the contradictory and erroneous opinions on the subject of credit, and an explanation of the inaccurate conceptions of the nature of CREDIT and VALUE, we refer to those articles.

CASSAN, ARMAND.

Statistique de l'arrondissement de Mantes. Mantes, 1833.

CASSON, CH.

Simples observations aux paysans. Paris, 1849.

CASTIGLIONI, CHARLES OCTAVE, COUNT.

Mémoire géographique et numismatique sur la partie orientale de la Barbarie, appelée Afrikia par les Arabes. Milan, 1826.

CASTREN, ERIC.

Historisk och æconomisk Beskrifning öfver Cajanaborgs Län. Abo, 1754.

CASTRES, ABRAHAM.

Ways and means for suppressing beggary and relieving the poor, by erecting general hospitals and charitable corporations. London, 1726.

CASTRO, JUAN DE.

Sabido el comercio que la Europa tiene en las Indias de quenta de los estrangeros, es razon que tengamos noticia del retorno que se saca de las Indias, en frutos, fuera del oro, plata, perlas, y esmeraldas. Madrid, 1670.

CASTRO, JUAN FRANCISCO DE, DON.

An advocate before the Royal Court of Galicia, born in 1750.

Discursos criticos sobre los leyes y sus interpretes; incertidumbres y detrimientos de los mayorazgos, y otras disposiciones analogos en el bien comun: su ofensa a la poblacion, agricultura, artes y comercio; necesidad de remedio; tentativa de algunos medios. Madrid, 1770.

CATALINA, J. PALO Y.

Censo de la riqueza territorial, &c., de Espana. Madrid, 1803.

CATINEAU LA ROCHE.

La France et l'Angleterre comparées sous le rapport des industries agricole, manufacturière, et commerciale. Paris, 1844.

CATO. Pseudonym.

The tendencies of the Foundling Hospital in its present extent considered. London, 1760.

CATOR, CHARLES.

Protest against the commutation of tithes. London, 1838.

CATTANEO, CARLO.

Ricerche economica sulle introduzioni imposte dalle legge civile agli Israeliti. Milano, 1836.

CATTLEY, STEPHEN.

The speech of, at the Bank of England, shewing that the present high price of Bullion is owing to the indiscriminate grant of licences to foreign ships. London, 1811.

CAUCHY, E.

De la propriété communale. Paris, 1848.

CAUSE.

The cause of our present distress; and the remedies that have been suggested for their relief, shortly considered. London, 1826.

The great cause of the present distress and the remedy. By a friend to the home trade. Chelmsford, 1843.

The real cause of the depreciation of the National Currency explained, and the means of remedy suggested. London, 1810.

The real cause of the high price of gold bullion. London, 1819.

Causes and cure of the present distress. London, 1830.

On the causes and consequences of the present monetary crisis, or the first principles of Political Economy applied to the gold bullion supplies. London, 1857.

The true causes of the present scarcity of milled money discovered, with some proposals offered to prevent abuses in exporting of bullion. London, 1896.

The true causes of the present scarcity of money, and the proper remedies for it. London, 1690.

CAUTION.

A caution to keep money, shewing the misery of the want thereof. London, 1642.

CAVALLI, CARLO.

Cenni statistico-storici della Valle Vigizzo. Torino, 1845.

CAVANDER, CHRISTIAN.

Historisk och ækonomisk Beskrifning öfver Sague Socken i Abo Lühn. Abo, 1753.

CAVEAT.

A caveat on the part of public credit, previous to the opening of the Budget, for the present year, 1768. London, 1768.

CAVEDONI, CELESTINO.

Delle monete antiche in oro. Modena, 1825.

L'Æs grave del Museo Kircheriano, ovvero le monete de popoli dell'Italia media ordinate e descritte. Rome, 1840.

Numismatica Biblica, o sia dichiarazione delle monete antiche memorate nelle sante Scritture. Modena, 1850.

Osservazione sopra le antiche monete di Atene. Modena, 1836.

CAVOLEAU, J. A.

Statistique, ou description générale du département de la Vendée. Fontenay-le-Comte, 1844.

CAVOUR, CAMILLO DI. This very eminent Italian Statesman was born in 1810 at Turin. To trace his illustrious political career is beyond the limits of this work, but we rejoice that he is a sound Economist, and has introduced many important economical reforms into the administration of his country.

Dell'influenza che la nuova politica commerciale Inglese deve esercitare sul mondo economico e sull'Italia in particolare.

Influenza delle riforme sulle condizioni economiche dell'Italia.

Della condizione finanziaria della Francia nel 1848.

Sui problemi sociali messi in campo nella rivoluzione del 1848.

Della legislazione Inglese sul commercio dei cereali.

Discorso sul libero scambio.

Sulla prolusione al corso di economia politica del Prof. Ferrara.

CAWOOD, FRANCIS.

An essay, or scheme towards establishing and improving the fishery and other manufactures of Great Britain. London, 1721.

CAYLA, J. M.

Histoire des arts et métiers et des corporations ouvrières de la Ville de Paris. Paris, 1853.

CAYLEY, EDWARD.

Commercial Economy, in six essays. London, 1820.

Corn, trade, wages, and rent; or observations on the circumstances of the present financial crisis. London, 1826.

CAXA DE LEZWELA, DON MIGUEL.

Discursos sobre la principal causa y reparo de la necesidad comun, carestia general, y despoblacion de estos reinos. Madrid, 1627.

Restauracion de la abundancia antigua de Espana o prestantissimo, unico, y facil reparo de su carestia presente. Naples, 1631.

CAZAUX, L. F. G. DE. A French Protectionist writer.

Bases fondamentales de l'économie politique d'après la nature des choses. Paris, 1826.

Éléments d'économie privée et publique, ou science de la valeur des choses, et de la richesse des individus et des nations. Toulouse and Paris, 1825.

La balance du commerce est elle un vain mot, comme la disent les Economistes? Paris, 1829.

Economie politique. Défense des principes de gouvernement de Sully et de Colbert. Toulouse, 1831.

Economie politique. La France doit-elle proclamer la liberté de commerce avec l'extérieur? Paris, 1828.

Economie politique. Réfutation d'un nouveau raisonnement de J. B. Say, tendant à prouver que les lois restrictives de la liberté d'importer les produits étrangers sont sans but utile. Toulouse, 1830.

Intérêts de l'agriculture, de l'industrie, et de commerce Français. Paris, 1833.

La science économique d'après Sully et les anciens, ou moyen d'accroître indéfiniment le bien-être des peuples, la future des riches, le revenu du gouvernement, et la moralisation de tous. Paris, 1834.

CAZENOVE, JOHN.

Questions respecting the national debt and taxation stated and answered. London, 1829.

In this tract Mr. Cazenove has very clearly seen the nature of the National Debt. It is not a mortgage on the property of the country, as several writers have said,—“What the govern-

ment did really undertake to do, was to guarantee to the lender sometimes a terminable, but more frequently a perpetual annuity, or income, in consideration of the sums which it had from time to time occasion to borrow.

"This annuity is part of the annual produce of the land and labor of the country, which is raised in the shape of taxes and placed at the disposal of the contractor or public annuitant; and the mode in which it has been secured to him by assigning him a certain amount of supposititious stock, bearing interest at 3, 4; or 5 per cent., as well as the stipulation which has been sometimes made of not reimbursing it below par, (that is, not compelling him to receive less than £100 money for £100 fictitious stock), is merely a matter of convenient arrangement, entered into at the time for the purpose of facilitating the transfer of the annuity from one party to another, and maintaining its value in the market.

"The National Debt then, consists properly of the annual charge to which the nation is subject, in order to furnish an income to the stockholder, and to increase this charge, is in reality to increase the debt, to diminish it, is to diminish the debt."

Mr. Cazenove then very truly shews that the taxes fall upon industry, as well as property, and therefore to make an assessment on property alone to pay it off would be manifestly unjust.

He then examines the effects of direct and indirect taxes, and is of opinion that the fairest and best system of taxation is that in which both are combined.

Mr. Cazenove has also published a second edition of *Malthus's Definitions in Political Economy*, with a preface and notes.

Thoughts on a few subjects of Political Economy. London, 1859.

In this work, Mr. Cazenove, p. 11, says that the inductive method of investigation is the only means of arriving at any sound knowledge on the subject. He restricts *Wealth* to material objects. This question we have fully examined under CAPITAL. He says, p. 19, that the total currency, or circulating medium of a country, consists of money and *all* its substitutes.

In the notes appended to his work, Mr. Cazenove has made some remarks on some of the articles in this Dictionary to which we feel it necessary to make a few observations. He says, p. 73, that we are in error in attributing to Adam Smith the doctrine that high rent is one of the causes of the high price of corn, and he refers us to a passage in which he says the reverse.

Now, we may observe that we were perfectly aware of the passage M. Cazenove refers us to, when we wrote as we did. But this is an example of the innumerable cases of difficulty in determining what is the doctrine of Economists. It is true that in the passage Mr. Cazenove refers to Adam Smith says that high price is the cause of high rent, but then, as we have shewn under RENT, in other places he has asserted just the reverse. And the difficulty is to determine from the general tenor of his work, which is the doctrine most conformable to it, and which also is the doctrine attributed to him by other writers. Now we have, we think, shewn under RENT, that the doctrine which we have mentioned under ANDERSON, was that which was generally attri-

buted to him, and understood to be his, by contemporary writers.

At p. 75, Mr. Cazenove has made a slight, and, of course, unintentional error. He says that we, in various places of this Dictionary, stoutly contend that Bills of Exchange are *money*. Now this is a mistake. We do not say they are money, but that they are *currency*, words which we do not consider as synonymous. We have shewn under CURRENCY that that word includes money, and instruments of credit of all sorts, which is the opinion Mr. Cazenove holds.

Mr. Cazenove has also contributed the greater part of the notes to *Jones's Literary Remains*, edited by Dr. Whewell.

CECILIA, DON JOSE.

Memoria sobre los medios de fomentar solidamente la agricultura en un pair, si detrimento de la cria de ganados, y el modo de remover los obstaculos que puedan impedirla. Madrid, 1777.

CEDERLOF, OLOF.

Öconomiska anmärkningar öfver Skånska Karp Adammar. Lund, 1766.

CENAC, MONCAUT.

Éléments d'économie sociale, avec un appendice sur la question des subsistances. Paris, 1847.

Éléments d'économie sociale et d'organisation du travail. Paris, 1848.

CENSUS CATHOLICUS; or a Project of a Tax upon money, exactly proportional to the abilities of the rich and the necessities of the poor. London, 1711.

CERFBER DE MEDELSHEIM, A. E.

Formerly editor of the *Courier de l'Isère*, and of the *Journal des Prisons et des Sociétés de Bienfaisance*.

Des sociétés de bienfaisance mutuelle, ou des moyens d'améliorer le sort des classes ouvrières. Grenoble, 1836.

Des condamnés libérés. Paris, 1844.

CERNON PINTEVILLE, DE, BARON.

Plan de libération générale des finances. Paris, 1790.

CERRETTI, JEAN BAPTISTE.

Histoire des montes-de-piété, avec des réflexions sur ces établissements. From the Italian. Paris, 1752.

CEVASCO.

Statistique de la Ville de Gènes. Gènes, 1838-40.

CHABROL DE VALVIC, G. J. GASPARD

DE, COUNT, Born at Rion, 25 September, 1778. Prefect of the Department of Montenegro, and after that of the Seine, Member of the Institute, &c. Died in May, 1843.

Budgets de ville de Paris, et rapports au conseil municipal à ce sujet, depuis 1818, jusqu'à 1827, inclusivement. Paris, 1818-27.

Recherches statistiques sur la ville de Paris et le département de la Seine. Paris, 1828-44.

Statistique des provinces de Savonne, d'Oneille, d'Acqui, et de la partie de la province de Mondovi, formant l'ancien département de Montenotte. Paris, 1824.

CHADWICK, EDWIN, C.B., a distinguished member of the Civil Service, who has borne a very leading part in most, and the first part in some, of the great administrative and social reforms of the last 30 years, was born at Longslight, near Manchester, in 1801. He comes of a younger branch of an ancient Lancashire family, noted in the county histories. He was educated for the bar, and during his course of study became acquainted with many medical students and persons engaged in commerce. To these subjects he brought a mind strongly imbued with a statistical bent.

An opportunity fortunately occurred for bringing his special talent before the public. In 1825 and 1827 Parliament had turned its attention to Benefit and Friendly Societies, and in these years two Reports were issued. The Northampton tables had hitherto been exclusively used in the calculation of the Value of Government Annuities. These had been prepared by Dr. Price from the burial registers of the Parish of All Saint's, Northampton, from 1735 to 1780. It was contended by some eminent statisticians that these tables were no longer to be relied on. They maintained that experience had proved that, from various circumstances, the expectation of life was greater than represented in those tables. The very companies that professed to base their calculations upon them, acknowledged their inaccuracy, as though they used them in the operation of insuring lives, they refused to do so in the inverse operation of granting annuities. They were, however, used in the grant of government annuities. Mr. Finlaison, the actuary of the National Debt Office, had repeatedly urged this on the government, and his calculations shewed that the loss to the nation was £8,000 a week. Other eminent actuaries, however, such as Mr. Morgan, of the Equitable, defended the accuracy of the Northampton tables.

Mr. Chadwick's first paper was directed to this dispute. It was published in the *Westminster Review* for 1828. It is interesting as having laid the foundation of Sanitary Science.

At this time Mr. Chadwick became acquainted with Mr. John Stuart Mill, who was also a contributor to the same review, and through him, with Mr. Senior, who, in conjunction with Dr. Whately, was bringing out the *London Review*. To this review Mr. Chadwick contributed two papers in 1829, one on "Preventive Police," and the other on "The Administration of Medical Charities in France."

The article on Preventive Police, attracted the notice of Jeremy Bentham, then in his 82nd year, and led to a friendship between its author and the aged jurist, which continued to the end of his life. Bentham was then occupied in the preparation of an administrative code, and he wished Mr. Chadwick to undertake that part of it which related to the ministry of public health, and of police. Mr. Chadwick resided with him almost constantly during the last year of his life. Bentham offered to place him in in-

dependent circumstances, on the condition of his engaging to devote himself exclusively to the propagation of his doctrines. This offer Mr. Chadwick declined, but Bentham bequeathed him his library of jurisprudence, and a small legacy.

In fact, Mr. Chadwick, although engaged in kindred subjects with Bentham, could not very well be called his disciple, because he followed exactly the opposite method to what Bentham did. That eminent philosopher, especially in the latter years of his life, had fallen almost entirely into the dogmatical or *a priori* system. From the constant habit of living alone in his hermitage in Queen Square, he seems to have thought that men were to be dealt with as so many algebraical symbols, and did not hesitate to send off constitutions cut and dried in his pigeon-holes in Westminster, to any part of the world.

Mr. Chadwick's method is just the reverse. It is his maxim that a full inquiry should always precede any legislation, and that the whole subject should be investigated just as if nothing had already been settled in it. By this means it often happens that doctrines and theories which are repeated and handed down from writer to writer, and pass current as incontrovertible axioms, turn out upon inquiry, to be absolute fallacies and delusions. Mr. Chadwick has several times been applied to by foreign governments to advise them on matters of Poor Law Administration, but has invariably declined doing so, because he was unable to offer them proper advice without instituting a searching investigation of the local circumstances of the case.

That this is the only true method of proceeding no competent person will deny. As a very striking instance of the necessity of the reinvestigation into the fundamental doctrines of Political Economy, we will only mention one. The invariable method of describing Banking is, that it consists in borrowing from one person and lending to another. There never was a greater delusion, nor a more complete misconception of any facts, than the current notions on Banking. There is not a single English Economist who ever had the slightest conception of the nature and effects, or the mechanism, of Banking.

We shall return to this subject more at length afterwards. In 1831, Mr. Chadwick contributed an article on "Taxes on Knowledge," to the *Westminster Review*.

The event which brought Mr. Chadwick prominently before the public was the appointment in 1832, by Lord Grey's government, of the commission of inquiry into the operation of the existing English poor laws. Mr. Senior was one of the commissioners, and at his instance, Mr. Chadwick was appointed one of the assistant commissioners. Each of these, eighteen in number, had a district appointed him, in which he was to make inquiries and to report upon it. Mr. Chadwick was fortunate in having the most important of these, London and Berkshire, allotted to him. These reports were printed in 1833, and out of a volume of 410 pages, Mr. Chadwick's report occupies 139.

The immense superiority of this report among its compeers, both in the nature of inquiry, the method of investigation, and the breadth of its views, was manifest, and was acknowledged by

the immediate promotion of its author to be a commissioner. He was also employed on another very important inquiry. In April, 1833, a Royal Commission was appointed to collect evidence and report upon the whole subject of the treatment of factory children. Mr. Tooke, author of the *History of Prices*, Mr. Chadwick, and Dr. Southwood Smith were the central board. Commissioners were appointed to collect evidence, and in July, 1833, the evidence was digested and published by the Board, accompanied by a Report, in which interference with adult labor was deprecated, but it was said that children were severely overworked, and suffered much both physically and morally, and a ten hours' bill, if not a six hours' one, was recommended.

The evidence collected by the assistant commissioners in the Poor Law Inquiry, proved the necessity of immediate legislation. A general report from the Commissioners, of which Mr. Chadwick was one, and which he materially assisted to prepare, was presented to Parliament on the 24th February, 1834, and in the course of the session the Poor Law Amendment Act was passed. (POOR LAW).

Three Commissioners were appointed, Sir Frankland Lewis, Mr. George Nicholls, and Mr. John J. Shaw Lefevre. Mr. Chadwick was appointed Secretary to the Board, with the distinct understanding that he was to have the virtual powers of a fourth Commissioner.

The first results of the Poor Law Amendment Act were highly satisfactory. The rates were reduced by about two millions annually. But the Commissioners, who had had no hand in conducting the inquiries which led to it, or in framing the measure, naturally did not feel so great a zeal in carrying it out in its integrity, as their Secretary, who had in fact borne the chief part in both. In 1835, the Commissioners gave signs of intending to revive some of the objectionable practices of the old law. In 1837, they gave still more evidence of backsliding. They paid no attention to the remonstrances of their Secretary, who saw all his labors in the fair way of being undone. He was obliged to appeal to Lord John Russell, who interfered, and overruled their proposal. In 1840, new proposals of an objectionable nature were again brought forward. On this occasion Mr. Senior concurred with Mr. Chadwick in remonstrating with Lord Normanby, and the plans were again overruled. Upon this Sir Frankland Lewis and Mr. Lefevre resigned. And Mr. Nicholls, who coincided very much with Mr. Chadwick's views, became senior commissioner. But this naturally produced an unpleasant relation between the board and its secretary, and he was in future excluded from all participation in the administration, and confined strictly to routine duties.

During this time Mr. Chadwick was also engaged in another inquiry of the most important nature. The reorganisation of the metropolitan police force, in 1829, had the effect of driving out great numbers of the London criminals into the country. In 1837, a Royal Commission, consisting of Mr. Charles Shaw Lefevre, Mr. Chadwick, and Lieutenant-Colonel Rowan, was appointed to inquire into the best means of establishing an efficient constabulary force in England and Wales. The inquiries were conducted throughout 1838,

and were equally searching and exhaustive as those of the Poor Law Commissioners. The Report was published in 1839, and during the session an Act was passed for the formation of a county constabulary. But the recommendations of the Commissioners were not carried out by any means to their full extent.

One of Mr. Chadwick's chief maxims in social inquiries was to endeavour to ascertain as many as possible of the *causes* of the evil; and to see which of these could be removed by legislation or other social arrangements. He had long been engaged in an investigation into the preventible causes of pauperism, which might be reached by legislation, or other means. These he traced to a considerable extent to intoxication, produced in many cases by an injudicious time of paying wages. By an alteration of this time, in one instance, a manufacturer reduced his usual absentees on Monday morning from 50 to 4. So with military pensioners, most of their intemperance arose from paying their pensions at too long intervals. Among the removable causes of pauperism he considered the law of settlement as very prominent. His opinion, on this point were strongly developed before a committee of the House "On Settlement and Poor Removal." He advocated the abolition of the law of settlement, or at least its extension from parishes to unions.

The preceding narrative fully bears out, we think, what we said at the beginning, that Mr. Chadwick has borne a very leading part in almost all the great social and administrative reforms of the last 30 years. We now come to one which is probably the most important of all, and to which the merit belongs more exclusively to Mr. Chadwick, namely—Sanitary Reform.

The germ of this may be found in his paper on Life Insurance in the *Westminster Review* in 1828. Among other reasons for believing that the duration of life was longer than counted in the Northampton tables, Mr. Chadwick attributed great prominence to the sanitary condition of the district, and the general rural habits of society. This was abundantly shewn in that paper.

The investigations connected with pauperism afforded him ample opportunities of pursuing this course of inquiry, and proved beyond a doubt that an immense mass of pauperism was due to defective sanitary arrangements; and therefore was one of the causes of pauperism preventible by legislation. In 1838, typhus prevailed extensively in London. Mr. Chadwick obtained the consent of the Poor Law Board, to the appointment of a special commission for inquiry into the existence of physical causes of disease in the Metropolis. The evidence fully confirmed the anticipation, that much of the mortality of the Metropolis was due to preventible causes. In August, 1839, Lord John Russell addressed a letter to the poor law commissioners authorizing them by royal command, to extend a similar inquiry over all England and Wales, into the preventible causes of disease. The inquiry was also extended to Scotland. Mr. Chadwick, certainly the greatest expert in the kingdom in such a task, was appointed to collect evidence for the commission. In 1842, the "Report on the Sanitary Condition of the laboring population of Great Britain" was at length ready. The Commission were unwilling to incur the

responsibility of adopting and presenting it in their own name, it was consequently published as Mr. Chadwick's report to them.

The sensation created by the revelations of this report was immense, and, no doubt, would have received due attention from Sir Robert Peel's government, if it had not been engaged in the long and vital changes in the Economical policy of the country. In 1843, Sir James Graham requested Mr. Chadwick to extend his inquiries into the practice of intramural interments, which had not been included in the former Report. Mr. Chadwick produced a supplementary report on the practice of interment in towns.

The reforms proposed in these Reports were so vast, and involved interference with so many existing rights, and were calculated to offend so many prejudices, and moreover contemplated works of such an extensive nature, that no government could bring in bills to carry them out without the assistance of professional men to decide upon the best practical method of doing so. A commission of men of eminence in different departments, under the presidency of the Duke of Buccleuch, was appointed to consider the subject in its practical bearings. Two reports were issued in 1844 and 1845, confirming the leading principles of the Report. Legislation, however, was stopped by the famous Corn Law crisis, which resulted in Sir Robert Peel's defeat and retirement from office.

In 1846, a case of alleged cruelty in the Andover workhouse created great public excitement, and an inquiry was ordered. The evidence produced before the commission further increased the public excitement. At the same time two assistant poor law commissioners were dismissed for insufficient reasons by the commission. These things made such a ferment in the public mind that the commission was dissolved, and a new one constituted.

In September, 1847, Mr. Chadwick was appointed one of a commission of inquiry into the sanitary condition of the Metropolis. Two reports, one in February, and the other in July, 1848, were issued by the commissioners. In that year the efforts of sanitary reformers were successful, and the Public Health Act was passed. A general Board of Health was appointed to superintend its operation. Lord Carlisle was the chief commissioner, Lord Ashley second, Mr. Chadwick the third, and Dr. Southwood Smith the fourth.

The Board proceeded to carry out the principles of the Sanitary Reformers, and in upwards of 100 towns measures were in progress, which were attended with the most marked success. Epidemic disease was visibly reduced, and in several places the rate of mortality had diminished from 30 to 14 in the thousand. But the carrying out of these reforms disturbed too many local influences, and offended too many local prejudices, and the Government were defeated in bringing forward a Bill for the renewal of the Public Health Act in July, 1854. While he was acting on this Board Mr. Chadwick was made C.B., and at its dissolution he received a pension of £1,000 a year.

In the discussions raised at this period respecting the Board of Health, strong testimony was borne, both in the House of Lords and Com-

mons, to Mr. Chadwick's public services. The Bishop of London said, "Mr. Chadwick he had known for thirty years, and he could say that a more efficient, active, diligent, and honest servant of the public, never existed. This was sufficiently proved by his conduct as Secretary to the Poor Law Commission. It was to his knowledge and exertions, and to those of Mr. Nicholls, that we were mainly indebted for the amendment of the Poor Law. After faithfully discharging his duties as Secretary to the Commission, Mr. Chadwick turned his attention to sanitary matters, in which he had displayed an extraordinary amount of knowledge. It was his opinion that if the suggestions of Mr. Chadwick and Dr. Southwood Smith had been carried out, we should not now have had to dread, at least to the same extent, the return of the Cholera. At the root of Mr. Chadwick's knowledge, there was an amount of benevolent interest for the poor, which would prevent his sanctioning any measure which would inflict hardship on the poorest of his fellow creatures." Lord Carlisle "quite agreed with the Bishop in the opinion he expressed respecting the two measures of our time, which seemed to him beyond any others, to have effected the internal condition of the great body of the people—the amendment of the Poor Law, and Sanitary Reform, and he sincerely believed, that the most efficient agent in originating and producing these two great fundamental measures, and in clearing away a host of obstacles which beset their early birth, was Mr. Chadwick, and to one or other of these measures he had ever since devoted his time, his health, and his strength." Lord Brougham said that "He well remembered the services—the invaluable services—of Mr. Edwin Chadwick, with regard to the Poor Law Commission, and the inquiry into the state of the poor and the Poor Law; and he could most distinctly state that to Mr. Nicholls and Mr. Chadwick were mainly due the success, both of the inquiry and of the great measure which grew out of it." Lord John Russell said—"Mr. Chadwick was a man of the greatest energy, and with a spirit of inquiry which induced him to labor by zeal, by unremitting attention to the subject in hand, to go to the bottom of it, and to attempt some remedy for the evils which he conceived himself to find there. He was appointed an assistant commissioner to inquire into the Poor Laws, and if in that large blue book, the Report of the Commissioners, they turned to the Report of Mr. Chadwick, they would find there the germ of that amendment, which in his conviction had saved the country from great social evils, if not absolutely from social revolution. * * * With reference to the subject of health, Mr. Chadwick's inquiries into the health of the metropolis and of towns, had been carried on through various commissions and investigations which had been undertaken on this subject; so that on these various topics—the Poor Law, the improvement of the police of the country, and the improvement of the health of the country, there was no man to whose zeal and assiduity this country was more indebted, than to Mr. Chadwick."

The economical course of investigation pursued by Mr. Chadwick, as well as the principles evolved by him, may be characterised as belonging to the statistical, or what Mr. J. S. Mill calls "the concrete

deductive method," as opposed to the abstract or geometrical method of reasoning in Political Economy and general legislation. In illustration of the dangers attendant upon action on *a priori* conclusions obtained in the geometrical method, he averred, in a paper calling for enlarged inquiry, by a commission, for the settlement of the facts to serve as a basis for the reform of Parliament, that there had been no one investigation with which he, with other commissioners, had been charged, which did not conclusively reverse every assumed main economical and political principle, and almost every assumed chief elementary fact, in which not only the general public, but Parliamentary Committees and men of high political position, were prepared to base legislation. Thus as respects pauperism, the prevailing doctrine founded upon the theory of Mr. Malthus, of the geometrical ratio of the progression of the population concurrently with only an arithmetical ratio of progression of the production of food, was that the general cause of pauperism was the pressure of population on the means of subsistence, and the chief immediate remedy was an extensive emigration. In that sense several men of eminence wrote, Mr. Wilmot Horton lectured, and Mr. Ricardo, when in the House of Commons, was prepared with Mr. Scarlett to legislate. But a careful and particular inquiry under the poor law commission showed that the oppressive excess of pauperism had not the character of helpless and unavoidable destitution, which it must have had to have been consistent with the theory of an overwhelming pressure of population on the means of subsistence, and was in the main everywhere the result of maladministration of rates paid in aid of wages, of relief to the able-bodied without any return of work, and in terms more eligible than regular industry. As a compromise with the advocates of the population theory, provisions were introduced into the poor law amendment Act for the emigration of paupers from the more heavily burdened districts. As a commentary on the theory Mr. Chadwick stated that in a district where there were fully 30,000 persons receiving out-door relief, after the passing of the Act there was great difficulty, with all the exertions of emigration agents, in filling even two ships, and of the persons who went away in them few were of the class for whom relief was intended.

As the theory that labor and food were nearly fixed quantities, from the population being pressed fully up to the means of subsistence, it was predicted by the economists of that school, that when out-door relief to the able bodied was discontinued, and the recipients thrown upon the labor market, assumed to be already overburdened, wages must inevitably fall, and a dire aggravation of distress ensue. But where the law was most steadily acted on, wages rose. The sequence of facts was that under the operation of an amended administration the laborers became more steady and diligent. The labor was more efficient, and made the return to the farmer's capital larger. Consequently the profit and the increase of the fund for employment of labor enabled and induced him to give larger wages. In those same districts where the pressure of population was then deemed the most decided, with a greater or less subsequent increase of numbers, there soon began to be felt a serious scarcity

of labor for the ordinary cultivation of the land.

Of all countries in Europe, Ireland was regarded as the best illustration of the population theory. From his observations on the administration of relief to Irish paupers in England, Mr. Chadwick, with Mr. Nicholls, strongly urged the Government to apply a system of compulsory in-door relief for the able-bodied in Ireland, and that, too, without any law of parochial settlement; but only with the Union administrative machinery. It was anticipated that the new Union Workhouses in Ireland would be permanently swamped, and that greater masses, from the greater assumed necessary destitution, would be thrown as burdens upon the rates than in England. But with the doors of the Union Houses thrown open to the able-bodied, and rations better than those common in the laborers' cabins, and free relief to the destitute, the amount of able-bodied pauperism and the pressure of the poor-rates have been less in Ireland than in England, or in Scotland. In 1857 the rate of expenditure in poor-rates was, in England, 8s. 8½d. per annum per head of the population; in Scotland, where the administration is chiefly of out-door relief, it is 4s. 2d. per head of the population, and increasing; in Ireland, which ought to be the heaviest burdened, it was 1s. 9d. per head, and diminishing.

Whilst, on the empirical method of legislation, or sentiment, or on such abstract economical principle as there may at any time have been in the minds of the legislators, it was proved in respect to previous legislation, "That there is scarcely one statute for the relief of the indigent that has produced the effect intended, or that has not created new evils, and aggravated the evils they were intended to counteract," so, on the other hand, in respect to the legislation on the concrete or deductive method, there has been nothing omitted which after-experience has not shewn the need of restoring. The want of sound economical knowledge and legislative and administrative principle on the part of popular representatives is, however, highly unfavourable to systematic legislation, and occasions a condition of the representative assembly, in which, as a general rule, no large systematized measure can be expected to pass entire, in which no such measure comes out not merely unimproved, but impaired in some one important branch.

The fundamental principle of a compulsory system of relief, adopted by Mr. Chadwick's colleagues, was enunciated in these terms;—"In all extensive communities circumstances will occur in which an individual, by the failure of his means of subsistence, will be exposed to the danger of perishing. To refuse relief, and at the same time to punish mendicity, when it cannot be proved that the offender could have obtained subsistence by labour, is repugnant to the common sentiments of mankind. It is repugnant to them to punish even depredation apparently committed as the only recourse against want. In all extensive communities the occurrence of extreme necessity is prevented by almsgiving, by public institutions, supported by endowments or by voluntary contributions, or by a provision partly voluntary and partly compulsory, or by a provision entirely compulsory, which may exclude the pretext of mendicancy. But in no part

of Europe, England excepted, has it been thought fit that the provision, whether compulsory or voluntary, should be applied to more than the relief of indigence, the state of a person unable to labor, or unable to obtain, in return for his labor, the means of subsistence. It has never been deemed expedient that the provision should extend to the relief of *poverty*, that is, the state of one who, in order to obtain a mere subsistence, is forced to have recourse to labor." This distinction, which was marked by Bentham, between indigence and poverty, is one between large organic, economic principles, the want of perception of which, and the attempts to relieve not merely indigence, but poverty, have been great socialistic error, and have everywhere been productive of injurious results.

One main object of properly administered provision for the relief of the indigent, is the prevention of mendicity. As applied to Ireland, provisions were introduced for the concurrent action of the police to repress and get rid of the mendicity, by which that country was heavily afflicted, but there were provisions omitted, in consequence of the opposition of O'Connell, to anything which would interfere with the sentiments of the Irish priesthood in favor of almsgiving. So that in Ireland, the rate-payers are still heavily burdened with the vices of mendicity, concurrently with the tax of the poor-rates. The new law, however, imperfect as it is, has rendered benefits far more than equivalent to the tax. It has facilitated the diminution of the wretched cottier holdings, and the application of capital to the improved cultivation of land, and an improved demand for labor and a rise of wages. The industrial training and education of orphan children, and the children of the destitute, in the new poor law union schools, is such as to convert the hereditary vagrants and mendicants into permanently productive laborers, and good subjects.

Besides the ordinary purposes of workhouses, the new Union-houses serve as hospitals and medical institutions, where there were none before. But for these houses for the reception and treatment of the fever-stricken during the period of the potato failure and famine, and for the service of the new administrative machinery during that calamity, it would have been terribly aggravated. With all deductions made, the Irish poor-law, with its administration, is the nearest realization of the measures devised under the English poor-law commission of inquiry, and is the best approximation to sound economical and administrative principle of any in Europe. In England the want of an organized country constabulary, which was the object of the constabulary force commission, was an obstacle to the efficient direction of the new poor-law machinery to the prevention of vagrancy, and of mendicity. The present organization is deficient also for breaking the hereditary pauper succession, by the sound industrial training and education of pauper children, of whom a large proportion under petty local management, continue, or return as permanent burdens upon the rates.

Before systematic investigation, or, indeed, after it, with some of the most successful local administrators, the general view was to operate upon the parishes singly and separately for the reform of their administrations. Even Mr.

Nicholls, who had reformed the administration of one parish serving as a model, as shewn by his original answers, only contemplated proceeding with the parishes singly, or, in rare cases, the union of two parishes. Mr. Senior's original plan was to operate for the repression of maladministration in the single parishes by an extensive administration of government auditors, at an expense of £600,000.

Among the grounds alleged by Economists of the geometrical school of reasoning for maintaining the chargeability of destitution, and the administration of relief in small areas, or the separate parishes, were these, that it brought the burden nearer to every man's door, that it gave to the wealthy an interest in taking care of the poor (meaning the laboring classes), in order that they might not become burdensome to their parishes. A further advantage stated was, that it gave to those at whose expense a superabundant population must be relieved, an interest in checking population or preventing improvident marriages.

The examinations of Mr. Chadwick shewed that the practical application of these hypotheses was everywhere fraught with mischief. "The interest created by the law of settlement, or by the imposition of the burden upon the proprietors in the narrow locality, was not an interest to do all these things any more than it could be said to be an interest on the part of a landlord to teach his tenantry geometry, if by learning geometry or anything else a man might be enabled to gain his own livelihood. The interest really created was simply an interest in getting rid of the burden, and that, too, by the shortest means. Unfortunately, the shortest means were found in shifting the burden, and unhappily this process of shifting was always accompanied by the creation of additional burdens." Hence the pulling down cottages, the bandying about of paupers. Mr. Bentham's plan of pauper management was an entirely opposite course, of submitting the whole to one great contracting company, and receiving different classes in large and peculiar structures on the panopticon principle. Mr. Chadwick objected, in the first place, that practically, even if the principle of contract management were at all likely to gain acceptance, that it required an amount of trained administrative ability to conduct it, which had to be created, and that for want of such ability the contract principle had to be abandoned, when it would in competent hands be otherwise highly beneficial. He took his stand upon ground previously enunciated in 1828, in his article on the administration of public charities, in the London Review, wherein he described the advantages of consolidating the administration of the funds and the several establishments for the relief of the poor. "By the adoption of this system, a better classification is obtained, by a better classification a more close scrutiny into the cases, and a more efficient application of the means of relief. Cut up a district into small sub-divisions, and in each of them may perhaps be found one or two blind, one or two maimed, several idiots or lunatics. These will not be attended to, or badly attended to, or if well attended to, it must be at great expense. Interest and exertion, which can rarely

be insured, would be requisite to get them provided for in independent, and perhaps very distant establishments. Break down these subdivisions, bring the whole of the objects to be provided for within one general management, and establishments may be formed for each class,—the blind, the lunatic, and the infirm; each will be much better provided for, and at a cheaper rate, a greater amount of pain is thus alleviated, time is saved, money is saved. A large class may be made to work when a small one cannot. In short, all the advantages of the division of labor are gained in the larger aggregate, and utterly lost in the smaller ones.” A mass of evidence was adduced by Mr. Chadwick, in support of this principle, which the Commissioners deemed irresistible, and they adopted it. He contended for the formation of Unions sufficiently large for the classification of the paupers in separate houses, assigning one house for the able-bodied adult male paupers, another for the aged and infirm, but above all, one for the industrial training and education of orphan and other pauper children. For this course, the existing workhouses and buildings would have been generally sufficient, and new houses would only have been required in thinly populated rural districts, and in exceptional cases. This view of the classification of paupers in separate houses, in Unions sufficiently large to effect it, was adopted by Mr. Senior, and the other Commissioners of Inquiry (*Report*, p. 306-14), and powers for carrying it into effect were provided for in the Poor Law Amendment Act. Partly, however, by the influence of the members for the metropolitan districts, who were returned chiefly by the vestries of the larger separate parishes, and partly by the want of preparation in economical and administrative principle of the first Board of Commissioners, the original measure was set aside, and the principle of classification in single houses was maintained, and new union-houses constructed throughout the country. In the course of experience of the working of this principle of classification in single houses, however large, it is found to fail most seriously as respects the future source of mendicancy and pauperism, the orphan, deserted and destitute children. In town districts it has become matter of complaint that few of the females from these houses turn out well, and, indeed, that they form the principal source of the prostitution of the streets. In consequence of the complaints of these evil results, and the experience of the general impracticability of preserving children from the evil influence of the adult paupers living under the same roof, so much of the original plan of administration, for classifying, in populous districts, in separate houses, has been reverted to, as relates to children. Powers have been given for the formation of schools, for districts of unions, with the consent of the local boards. Such consent has been obtained only in a few instances. But such as have been obtained have been attended with remarkable demonstrations of administrative and educational power, when exercised on sound principles. Whereas formerly only one out of three orphan children brought up in the inferior parochial establishments, and two out of three of the somewhat improved union establishments, became permanently productive laborers, in the

complete and separate district schools, with appropriate industrial training, as well as sound book instruction, the great bulk, with few or slight exceptions, were got into permanently productive occupations, and that of a degree above the lowest sort of labor.

Besides the moral and social conclusions derived from such demonstrations of administrative and educational power for the conversion of hereditary mendicants and vagrants into a settled industrial and productive population, Mr. Chadwick gives the following as the chief economical conditions evolved, and it may be presented as an example of his method of treating social and administrative questions. “Every child or person living at large as a mendicant costs the public as much as he could be maintained for in a well administered public establishment, still more will he cost to the public by his spoil and waste as a predator. Taking the average cost as low as two shillings per week from infancy (and in respectable contract establishments on a large scale it was more than double) for food, clothing, house room and care, a pauper child will have cost £70, and may be considered as an investment of capital to that amount, at fourteen years of age, a period at which he ought to be enabled to earn (or replace by an equivalent) his own subsistence, and something over and above as payment to the capitalist, his employer, as interest on capital, as well as the labor and risk of providing and the skill of superintending productive labor.

“Under an unskilled, ignorant, and incompetent local administration of the funds raised for the relief of the indigent, two out of three of the investments in the training and education of pauper children were lost, that is to say, the subjects returned as permanent burdens upon the public, if not immediately as paupers upon the streets, as mendicants or delinquents. In whichever condition they lived, the expense for their maintenance for the remainder of life (which, according to the insurance tables, would from the adolescent stage average about 40 years) would not be less than double the previous rate, and would not be less than £400 in addition to bringing up the individual to the adolescent stage.

“Upon every three investments for maintenance to the adolescent stage there was a loss of two, and a subsequent loss of not less than £800. The prisons of Great Britain contain an average of not less than 20,000 able-bodied persons, chiefly of these legislative, administrative, and economical failures. That prison population being kept up from far greater numbers living at large, of which upwards of 100,000 are recognized, and upon the books of the police, are the criminal and vicious stock living upon the community. But an improved administration, involving the services of trained and skilled teachers at an additional expense of not more than from £1 to £1 10s. per case per annum, of the period of school teaching, or on the average about £24 of additional expenditure skillfully administered on the three, the entire investments are saved, with a few exceptions. The economical results are rendered so far certain that competent officers might guarantee their accomplishment, and the conversion of orphan children into good and productive, instead of bad subjects, at an insurance charge of about two per cent.”

A well-administered public provision, by compulsory rates, for the relief of the destitute, as contended for by Mr. Chadwick, besides giving to the community confident assurances of the strict performance of the duties of providing for the really destitute, relieving the minds of laborers from the apprehension of suffering from uninsurable calamities, and relieving the minds of others from the pains of sympathy, arising from the extreme calamities that may or do befall any portion of the community, it has an economical value, as sustaining productive labor, by shielding the laborers from the pernicious influence of habits of mendicancy, which has so depreciating an effect on the industry of some continental communities. 2ndly, by abating the pressure of the tax of mendicity. 3rdly, by breaking the mendicant and pauper succession in the manner above exemplified. It has also a jurisprudential value, as strengthening the hands of justice for the repression by punishment of large classes of offences. An ill-considered and an ill-administered provision for the relief of destitution, has the reverse tendencies, and a pernicious influence on public economy, chiefly by giving to the laboring classes the slave's security against want, with the slave's indifference to exertion for the attainment of results in which he has no adequate interest. This was one marked effect of the local administration of the poor rates in England, under the law of parochial settlements. In a large proportion of the country, which Mr. Chadwick, in his evidence before a committee of the House of Commons, designated as the slave labor districts, any one who purchases a whole parish, in effect often purchases the stock of labor, almost as much as the game upon it. The agricultural laborers upon it will find difficulty in obtaining engagements in any of the adjacent parishes, from the apprehension that they may obtain settlements. Within their own parishes, whether they work well or ill the parish must maintain them, and, comparatively, they work ill, and they are commonly comparatively dear at half the wages earned in other districts. The mere blind lust of dominion, and the supposed interests of the large land owners of single parishes in the House of Commons, and the low state of economical and administrative principle, has hitherto prevented the most important portion of the original plan of poor law amendment, the repeal of the law of parochial settlement, or the substitution of chargeability on large areas as in Ireland, without any settlement whatsoever, being adopted. Such partial improvements as have been effected in poor law administration, have occasioned an average reduction of between one and two millions on previous expenditure, but a continued excess of between one and two millions is estimated as due to the derelictions of principle specified, and other remaining shortcomings in the original outlines.

Mr. Chadwick entered into close investigations of the conditions affecting the efficiency and productiveness of laboring populations, and thence of the Wealth of Nations. The chief of these conditions are sanitary, affecting the bodily strength, mental, including other than those derived from book instruction. At the Congress of Bienfaisance held at Brussels, he read a paper in which he shewed, with the concurrence of ex-

perienced foreign employers of labor on a large scale, that as a rule, and in their actual condition, two Anglo-Saxon laborers were equivalent in the productiveness of their labor to three modern Norman, or three Danish, or three German laborers. In this economical condition in which the labor of two is equal to three, the food, the clothing, the house room, and the whole expense of one is saved, and constitutes a fund which is divisible between the two and the capitalist as profit. In the extra wages of the English workman, which are generally one half higher than the wages of the workman of any other nation, the extra produce obtained is so divided, and if he chose it might be saved by him. It follows that the economical efficiency of the twenty-six millions of the English population is more than equivalent to that of the thirty-six millions of the population of France, or of the other populations one third more numerous. Mr. Chadwick's economical view of the condition of the people of Ireland question, founded on the condition affecting the efficiency of the Irish laborers, differed largely from that of the political agitators as well as the economists of the day. In the first place, from the Irish laborer, as a Roman Catholic, observing the saints' days, from his regular attendance weekly at markets though he has nothing to sell or to buy there, his attendance at fairs, at the funerals, and lawsuits, and feuds of his tribe, his working days of productive labor are less than two hundred in the year; while the working days of his year are thus nearly one third less than those of the English laborer, the working hours of the Irishman's days at home are fewer, and generally not more than half so productive as those of one Irish laborer working under an English regime, or those of an English laborer. By the low sanitary conditions of the Irishman's cabin, the years of his life and working ability are reduced by one third below that of a healthy English agricultural laborer. Foreign economists agreed that the like deficiency of the working hours of the day, of the days of the year, and the years of life, accompanied and caused the poverty of populations within their own view, which it had been common to ascribe to unavoidable pressures on the means of subsistence.

Upon his own investigations in the poorest districts most ravaged by epidemics, he alleged in respect to the doctrine of the population check, "where the pressure of the causes of mortality is the greatest, where the average age of death is the lowest, and the duration of life is the shortest, there the increase of population is the greatest. The proportion of children is great, because life is short, and the generation transient, the middle aged and the aged are swept away in large proportions, and marriages are disproportionably early. But, says a Political Economist, in an essay in support of Mr. Malthus's view, 'The effect of wars, plagues, and epidemic disorders, those terrible correctives, as they have been justly termed by Dr. Short, of the redundancy of mankind on the principle of population, sets its operation in the most striking point of view. These scourges tend to place an old country in the situation of a colony. They lessen the number of inhabitants, without in most cases lessening the capital that is to feed and maintain them.' What I apprehend the actual facts when examined

place in a striking point of view, is the danger of adopting conclusions deeply affecting the interests of communities on hypothetical reasonings, and without a careful investigation whether the facts sustain them. The facts themselves when examined, shew that (be it as it may with war) epidemic disorders do not lessen the number of inhabitants, and that they do, in all cases that have been examined, lessen the capital that is to feed and maintain them. They lessen the proportion of productive hands, and increase the proportion of the helpless and dependent hands. They place every community, new or old, in respect to its productive economy in the position which the farmer will understand by the like effects of epidemics upon his cattle, when in order to raise one horse, two colts must be reared, and the natural period of work of the one reared is, by disease and premature death, reduced by one-third or one-half."

These conclusions are to be understood as applicable to ordinary epidemic visitations, and not to such extraordinary occurrences as that of the general potato failure and the Irish famine, which led to so enormous and continued an emigration as to preclude the manifestation of any results in the power of reproduction in Ireland itself after the visitation. The chief benefit which has accrued from it, has been in breaking up conditions of holdings in which the efficient application of capital and labor to production is prevented. Evidence may be adduced from actual results, that, under a highly advanced system of agriculture, a more numerous and highly paid population would be needed than Ireland has yet borne in any extensive district. But the increase of births under ordinary epidemic visitations and high amounts of mortality appeared in the course of Mr. Chadwick's investigations to arise from a physiological cause, such as would be apt to be overlooked in cursory examinations. It was evolved thus:—In the course of the investigation of the system of parochial allowances in aid of the wages of laborers with families, and of payments on account of the number of dependent children, it appeared that in the rural and least unhealthy districts the intervals of births averaged two years, so that if there were a family of eight children, the eldest was sixteen years of age, the next fourteen, and the next below that twelve, each of whom was capable of productive labor. But on attempting to apply this rule as to the intervals of births to the most unhealthy towns districts it was found to be wholly at fault, the intervals of births then averaging only about one year. The reason being the physiological one, that when the infant is cut off at the breast, conception takes place almost immediately, whilst it is deferred generally so long as the child continues to suckle, and by deferring the weaning, the intervals of birth may be protracted as long as three years.

To the general result of the increased fecundity concurrently with an excessive mortality, other causes, which are thus stated by him, appear to be contributory—"In works where the average period of working ability is extended to the natural period of superannuation, which the evidence shews that a combination of internal and external sanitary measures may be expected to give,—namely, an average of full 60 years, the account for one place would be one superannuated

workman and one widow, and a family of four or five well grown children, who having received parental care during that period, will probably all have obtained before its termination the means of independent self-support. Whereas with a population of only fifteen or twenty years of working ability, the same place of work may during the same period have been filled by two generations and one-fourth of work people, not one of which has brought all the children dependent on it to maturity, or a condition for self-support; and the account of widowhood and orphanage will frequently for the same place of work stand thus:

Workmen prematurely dead.	Orphan Children.	Years loss of support.
J. M., 1 Widow	2	39
S. H., 1 "	7	26
H. Y., 1 "	5	15

That is to say, three widows instead of one, and three sets of stunted and unhealthy children dependent for such various periods as those above specified, and competing for employment at the same place, instead of one set of healthy children arrived at the age of working ability for self support.

"The dependency of the duration of life upon the physical condition of the population, and the connection of the several classes of moral and economical facts with the proportionate mortality, may be thus exemplified.

"Taking the four counties in Ireland in which the proportion of mud hovels, with only one room, is the greatest, and the four counties in which the proportions of such tenements are the least; having obtained these proportions, I directed other returns to be obtained in their order, and confidently anticipated the general results following from the facts indicative of the physical condition of the population.

	The four counties where the average proportion of mud hovels as habita- tions is the lowest.	The four counties where the average proportion of mud hovels as habita- tions is the highest.
Proportion per cent. of families occupying habitations which are mud cabins, having only one room	29.	61.
Proportion of deaths from epi- demic disease to every 10,000 of the population	35.5	47.8
Average age of all who have died during the ten years ended 6th June, 1841	33.4	26.8
Proportion of births to the popu- lation	33.4	29.9
Increase per cent. of the popu- lation since 1831	5.	8.7
Per cent. of the population 16 years and under	38.8	41.9
Above 50 years	11.6	9.5
Proportion per cent. of male and female population 17 years and upwards—Unmarried	43.25	39.
Married	47.75	53.
Per cent. of the population 5 years old and upwards, who can neither read nor write	42.8	69.7
Proportion of crimes of violence or passion to each 10,000, on an average of 8 years, to 1842.	32.	73.
Rapes and assaults with intent.	17.	44.

He states that the fallacy of the geometrical reasoning, which erects pestilence into a good, is further illustrated by the effects of the proportions of the dependent populations of Ireland. Thus in England the population above 15 and under 50 years of age in every 10,000 is 5,023, and this 5,000 have 3,600 children below 15 years of age dependent upon them. In Ireland the population

above 15 years of age is 4,900—in other words there are 125 less of adults in every 10,000 and this smaller proportion of living adults with 8 or 10 years less span of life, or working ability, have 4,050, or 450 more children dependent upon them. In England there are 1,365 persons in every 10,000, or 13½ per cent., above 50 years old, to exercise the influence of their age and experience upon the community. In Ireland there are only 10 per cent., or 1,050 in every 10,000 of the population above 50 years of age.

"If the deaths in the whole of England and Wales had been in the proportions attained in some districts, and attainable in all, namely 1 in 50, there would during the year have been 31,866 funerals less, and more than ten times that amount of cases of sickness the less.

"If the proportion of births in the whole kingdom had been the same as those occurring in average healthy districts, such as that of the town district of Hackney for example, of 1 to 42, there would have been 139,958 births the less to make up for the excess of deaths.

"It may be observed that whilst in England there are 5,025 persons between 15 and 50, who have 3,610 children or persons under 15, in America there are 4,789 persons living between 15 and 50 years of age, who have 4,371 children dependent upon them. In England there are in every 10,000 persons, 1,365 who have obtained above 50 years' experience, in America there are only 830.

"The moral consequences of the predominance of the young and passionate in the American community, are attested by observers to be such as have already been described in the general sanitary report as characteristic of those crowded, filthy, and badly administered districts in England, where the average duration of life is short, the proportion of the very young great, and the adult generation transient.

"In the course of some inquiries under the Constabulary Force Commission, as to the proportions of a paid force that would apparently be requisite for the protection of the peace in the manufacturing districts, reference was made to the meetings held by torchlight in the neighbourhood of Manchester. It was reported to us on close observation by peace officers, that the bulk of the assemblages consist of mere boys, and that there were scarcely any men of mature age to be seen amongst them. Those of mature age and experience, it was stated, generally disapproved of the proceedings of the meetings as injurious to the working classes themselves. Those older men were assured by their employers were intelligent, and perceived that Capital and large Capital was not the means of their depression, but of their steady and abundant support. They were generally described as being above the influence of the anarchical fallacies which appeared to sway these wild and really dangerous assemblages. The enquiry which rose upon such statements was, how it happened that men of mature age feeling their own best interests injured by the proceedings of the younger portion of the working classes, how they, the elders, did not exercise a restraining influence upon their less experienced fellow workmen? An inquiry of the owner of some extensive manufacturing property on which between 1,000 and 2,000 persons were maintained,

at wages yielding 40s. per week per family, whether he could rely on the aid of the men of mature age for the protection of the Capital which furnished them the means of subsistence? He stated he could rely on them confidently. But on ascertaining the numbers qualified for service as special constables, the gloomy fact became apparent that the proportion of men of strength and of mature age for such service were but a small group against a large crowd, and that for any social influence they were equally weak. The disappearance by premature deaths of the heads of families and the older workmen, at such ages as those recorded in the returns of dependent widowhood and orphanage, must to some extent practically involve the necessity of supplying the lapse of staid influence amidst a young population by one description or another of precautionary force."

It was part of the population doctrine at the commencement of the present century that poverty was the result of an inevitable law, and was hence the parent of crime. This, if true, would have thrown great obstacles in the way of the penal administration, but Mr. Chadwick states that a careful and close inquiry, made under the constabulary force commission, he "could find scarcely an instance of a respectable workman falling into habitual delinquency from the pressure of any distress, which the exercise of ordinary prudence would not have averted—the general condition of habitual or professional depredation being that in the absence of a proper preventive police, and in the absence of appropriate penal administration, delinquency paid better than regular industry." And even as to the penal statistics received by Parliament and the public, as certain measures of the extent and progress, it was demonstrated that they were wholly fallacious. As an example, having reference to the social evil, which has lately attracted great attention in the metropolis, Dr. Colquhoun, a police magistrate, in a work on the "police of the metropolis," which has been received as a text-book, stated the number of the professed prostitutes at the commencement of the century as upwards of 50,000, and it was generally assumed that since then, they had increased in a greater proportion than the population, but on an actual enumeration, it was found that even with an unavoidable reduplication of numbers who were enumerated in the districts they resorted to, as well as those they resided in, that the actual number in the metropolis did not exceed seven thousand.

Adam Smith himself, from hasty generalization, has fallen into much error. For example, in speaking of the effect of the division of labour upon the intellectual condition of the masses, he says, "In the progress of the division of labor the employment of the far greater part of those who live by labour, that is, of the great body of the people, comes to be confined to a very few simple operations—frequently one or two. But the understandings of the greater part of men are necessarily formed by their ordinary employments. The man whose whole life is spent in performing a few simple operations, of which the effects, too, are always the same, has no occasion to exert his understanding, or to exercise his invention in finding out expedients for removing difficulties which never occur. He naturally

loses, therefore, the habit of such exertion, and generally becomes as stupid and ignorant as it is possible for a human being to become. The torpor of his mind renders him not only incapable of relishing, or bearing a part in, any rational conversation, but of conceiving any generous, noble, or tender sentiment, and consequently of forming any just judgment concerning many of the ordinary duties of private life. Of the great and extensive interests of the country he is altogether incapable of judging." (*Wealth of Nations*, B. v. c. i.) Other economists have adopted these gloomy views of the influence of the subdivision of labour. It is not to be supposed of such a man as Adam Smith that he drew this picture solely from imagination, and that he had no instances, as he might have had, of the kind described. Mr. Chadwick, whilst denying the fact as to the general results being as predicated, asserts that the very reverse is the actual tendency of the progress of labour. He finds laborers engaged in subdivisions of labor consisting of semi-automatrical operations, manifesting a higher degree of mental cultivation than others whose occupations are in varied occupations requiring more of thought. He finds hand-loom weavers studying geometry, shoe-makers advanced in polemics, tailors prominent in politics, whilst engaged in labour consisting of simple movements, chiefly repetitions of motions, all of which are being superseded by machinery. The machinery itself commonly requires a higher degree of responsible attention by the person directing it, but not all his attention, as assumed by Adam Smith, who had overlooked the psychological fact, which would have become manifest to closer and wider observation, that distinct mental operations often assist each other, that two mental operations may often go on better together than separately. Such laborers, in semi-automatrical processes, and superintenders, and workers of machinery, often hire persons to read to them during the work, and employers commonly find the work go on the better for the accompaniment of the second train of ideas raised by the reading, as the march of soldiers proceeds the better by the excitement of the imagination created by music. Subdivisions of such labor, instead of confining the mind to the process, liberate it, instead of depressing the mind, give room for its expansion, and open it to the reception of agreeable impressions. With the educated work people, singing and poetry attach themselves peculiarly to the semi-automatrical processes. If a man, who being compelled to earn his own livelihood, would study, or would indulge the imagination, he would seek for the purpose a peculiarly simple subdivision of labour. It is the manufacturer, the provider of the capital and machinery, the director of the processes, whose mind is commonly confined and narrowed to them, and who may not study geometry, though the educated hand-loom weaver may, and does. Whilst the more intelligent operatives in some of the manufacturing towns are found trooping in the evening to lectures and reading-rooms, the employer commonly, and certainly at the commencement of his business, and in bad times, and under competition, who has been obliged to shut his ears to the music and song of his workpeople during the day, and at night, if he have any force

left, he is constrained to look over his books, to ruminate over the day's outgoings, and probable incomings, the chances of bad debts, and the pressing needs of the payments due from him, as well as the chances of the failures of crops. The better paid workmen are often stouter and less careworn in their appearance than their masters. Prosperous workmen, who in their promptings of a laudable ambition, become small masters, or undertake positions of greater responsibility, requiring more attention to a greater variety of technical operations, are commonly after a time seen to have undergone a disadvantageous personal change, in which the effects of the care and anxieties belonging to their new condition are visibly manifest in their countenances.

But it is just to state that errors of imperfect investigation, and of hasty generalisation, are proved by the official reports relating to the condition of the laboring classes to be more frequent among members of the legislature, and even amongst practical men, the larger employers of laborers, than amongst philosophical and economical writers.

This fact was particularly displayed by the investigations under the commission of enquiry into the labor in factories, where though manufacturers, men of education, were met with, who had sound views, yet it was clear that if conclusions had been adopted upon the votes of the majority on either side, both would have been wrong. The claim put forward on behalf of the children employed in factories was a forcible limitation of their labor to ten hours a day. But on investigation it was proved that ten hours' labour for young children was excessive, and that efficient means for insuring even that limitation were wanting. Mr. Chadwick, who had charge of the bill, contended for a practical limitation of the labor of children under 13, to six hours a day, with securities for three hours daily instruction, to prevent them from being excluded from education, as also to prevent them from being used in double sets. But this plan was pronounced to be impracticable, and opposed by several of the leading agitators. Whilst these arrangements and others destructive of nightwork, and the use of double sets of laborers for long hours, and any regulations to limit the daily duration of factory labor, were resisted by manufacturers on assumed economical grounds, they asserted that any limitation of the hours of factory labor would be ruinous. In the first place they declared that the quantity of goods which could be turned off in a given time was fixed, that the interest of the outlay of capital in machinery, buildings, &c., and establishment charges, are fixed, and required given amounts of labor to pay for, say ten or eleven hours per diem, and that to cut off the eleventh or even the twelfth hour, was to cut off the profit which was the inducement to provide the capital and machinery, &c. On investigation, it turned out that the manufactories which were worked the longest hours, which according to this theory should have been the most prosperous, were the poorest, and that those which were worked with double sets, night as well as day, instead of making great fortunes, the most frequently became bankrupt, and, it may be added, are nearly all now extinguished. The truth had been overlooked that the proper working of ma-

chinery requires attention, and that physiological conditions prevent attention being sustained beyond given periods. It was proved that where the working of machinery was prolonged beyond given periods, the proportion of spoiled work increased and the total quantity of work turned off diminished, so that instead of the profit beginning at the last hour, or hours, which the practical manufacturers declared to be necessary, the loss generally began then. The principles of legislation as proposed by Mr. Chadwick and his colleagues having been carried against this opposition, and subsequent legislation for the reduction of the hours of labour of other young persons below the adult stage, having effected a reduction of the hours of labour in factories from twelve hours or more, to ten hours and a half of daily labor; and this limitation having compelled the adoption of improved arrangements, it is now admitted that the stock of working hands having become more vigorous, and capable of giving a better attention to larger amounts of machinery put under their charge, the regulated cotton manufacture has attained a degree of efficiency beyond any which it previously possessed, that the change has been accompanied by greatly extended investments of capital, and that the regulated manufacture is now capable of competing with unregulated labour, and long manufacturing hours and low priced labor in any part of the world. Manufacturers subject to the law are now recommending its extension, especially the extension of the half-time system of work and education for children, to other branches of industry.

The tendency of the official investigations conducted by Mr. Chadwick has been to abate despondency, and to give more hopeful views for the future of the working classes than has been taken by other economists. In a paper read before the Congress of Bienfaisance held at Brussels, he developed self-acting causes for the advancement of wages with the advancement of agriculture and the manufacturing arts, causes to a great extent independent of the numbers of workmen as affecting the demand and supply of labour. Some extracts from this paper will be found in their proper place.

On the means of Insurance against the casualties of sickness, decrepitude, and mortality. Westminster Review, April 1828, republished by C. Knight, in 1836.

This article was much quoted for its answer to Mr. Morgan, the actuary of a very successful insurance company, the Equitable, who contended that the mortality tables chiefly in use, the Carlisle, were founded on laws which were settled, and that no change could be made in the table with advantage. The article contended that the occurrence of sickness and mortality was governed by the surrounding conditions in which human beings were placed, and that as these changed, so must the insurance provisions or laws in respect to them be altered. It also shewed that these changing conditions in respect to the laboring classes not having been attended to, the existing insurance provisions for them were untrustworthy and ruinous. This article has been referred to as laying the foundation of sanitary science, that a great proportion of the sickness and mortality prevalent in the community, is dependent not on

fixed laws or conditions, but on such as are in many cases removable, or preventible by due legislative and administrative means.

On the administration of public charities in France, with a view of the means now adopted for the relief of pauperism and mendicity. London Review, 1828.

This article opened up the consideration of some fundamental principles of Poor Law administration, as that of aggregation of means, or as it is called by opponents, centralisation. The views contained in it have already been explained above. The article opened out the application of the economical principle of *aggregation for the purpose of segregation*, or classification, to effect a division of labor, to poor law and other branches of administration, as opposed to the plans of other economists and administrators of dealing with small parishes separately and independently. The study of the subject evinced in this and other connected articles led to an application to Mr. Chadwick to assist in the investigation of the administration of the poor laws in England.

This article also opened out the use of competitive examinations, or the *concours*, as a means of testing the fitness of junior candidates for admission into the public service. The principle was afterwards adopted and advocated by Mr. John Stuart Mill, and in part carried for the Indian Civil Service, and was next supported by Sir Charles Trevelyan, for application to the public service in England.

A Preventive Police. London Review, 1829.

This article displays the inefficiency of the parochial night watch and police, and objections to the ordinary repressive or detective action of such forces, and puts forward some leading principles for the preventive action of a new police. This article, which preceded Sir Robert Peel's bill for the establishment of a metropolitan police in 1829, produced a considerable impression at the time. It led to Mr. Chadwick's being sent for by Jeremy Bentham, and to the commencement of an intimacy with the philosopher, and a residence with him till his death.

In Mr. Chadwick's views the administrative action of a police should be concurrent with the action of a service for the relief of indigence, for the prevention of the economical charge, as well as for the prevention of the crimes involved in habitual mendicancy and vagrancy. In this view mainly, and upon his suggestion, a commission was appointed in 1838, for examining the constitution and action of the constabulary force throughout the country. He was appointed as a Commissioner for the purpose, and had for his colleagues Mr. Charles S. Lefevre, now Lord Eversley, as representing the county magistrates, and Colonel the late Sir Charles Rowan, the Commissioner of the new Metropolitan Police, as representing the practical experience of that force. The latter always expressed high admiration for the powers of investigation and judgment of his colleague, and adopted this as a text book of principle for the organisation of such forces.

On the Taxes on Knowledge. Westminster Review, 1831.

At the time of the agricultural riots and attacks on machinery in 1830, Dr. Whately and other economists were desirous of informing the po-

pulation on the subject, but they were debarred by finding that population inaccessible to communication by print. Agricultural laborers were not in the habit of reading even the local newspapers. Mr. Chadwick directed his attention to this state of things, and wrote the above article, which was afterwards reprinted and circulated with the support of Dr. Arnold, and other public men. In that article Mr. Chadwick first gave the designation which has since been attached to all the fiscal imposts by which the circulation of political and other knowledge is impeded. He shewed that whatever might be the objections to the existing means of communication by newspapers, or by print, it was a great improvement on verbal communication, in which the most noxious errors circulated without answer, and that the method by print was in all respects the most responsible and the least dangerous. To tax the press was to tax a better description of knowledge, however inferior to that which might eventually be communicated. Mr. Chadwick's views were first adopted by Sir Edward Bulwer Lytton, and brought forward by him in Parliament, where the question was first designated as "Mr. Chadwick's question." It was afterwards prosecuted by Mr. Milner Gibson, and eventually carried as regards advertisements and newspapers, and hence the cheap press which is now making rapid strides in England. In that article the following economical doctrine was stated, "it may be proved from an intimate inquiry into the means and habits of the people, that the capacity to purchase gratifications which do not form part of what are considered the necessities of life, extends in number from certain points in proportion to the cheapness in a greater than a geometrical ratio. Thus if in any town, or place, composed of the average proportions of the different classes of society, there are found one hundred persons who can purchase a work sold for one shilling, there also will be found more than three hundred able or disposed to purchase a work sold at three pence, and so on."

The elementary fact here indicated is one of great importance for the government of prices, with the view of obtaining the maximum of returns, as in charges for railway service by fares. Its application to postage has led to a five-fold use of the service. In the press since the repeal of the chief taxes the operation of the principle has been displayed in this, that whereas the sale of established weekly journals sold at 7d. were under 4,000, those at 4d. average 10,000, those at 2d. averaged 20,000, those at a penny upwards of 100,000. The sale of publications by which the vendor obtained a profit of a farthing each has in particular instances become five-fold of those in which he obtains the profit of a penny. Further observation would be necessary to ascertain exact ratios, and to define the operation of the principle, requiring an examination of the proportions and conditions of different classes of society. Thus, to take a medium community, that of the City of Bristol, we find the proportions as denoted by the different rentals of the houses they occupy, those of £5 and under, forming 27 per cent. of the population, those at £10 and under, 26 per cent; those at £20 and under, 20 per cent; those at £30 and under, 9 per cent; those at £40,

4 per cent; those at £50, 2½ per cent; those at £60, 2 per cent; those at £70, 1½ per cent; those at £80, 1 per cent; after which the proportions are reduced to fractions. The study of the like proportions, and such others as the numbers of fund-holders of different amount, is important as correcting popular conclusions from the more conspicuous cases, as to the amounts of contribution and relief obtainable by taxing large properties.

In this article on the Taxes on Knowledge, the question was raised of utilising the postal service for the conveyance of books, as well as letters. The economical grounds were thus stated:—"That the government having already established the complete agency for the distribution of letters, this same agency might be used to distribute the great mass of publications by post at a comparatively small additional expense. That to compete with the public establishment, the private distributors or vendors must maintain an agency almost solely for this one purpose. In all cases of the delivery of letters from the post office, the labor of distributing a great quantity of other things may be performed without any material additional expense. The postman who traverses a street to deliver half a dozen letters may in passing through it, deliver twenty or thirty newspapers, without any material additional expenditure of time, and the labor is all in his day's work. But the private vendor must employ a person for the one purpose of delivering the newspapers, and he cannot therefore do it so cheaply as the government." The economical principle contended for is that of saving establishment charges, which, howsoever multiplied, must eventually be at the expense of the public. The postal service has been utilised for the conveyance of books, and in a report made to the Society of Arts, Mr. Chadwick, with other persons, contended that it should be applied to the distribution of small parcels, as in Prussia and other States—but not as a monopoly. Before a Committee of the House of Commons, the railway companies represented that the conveyance of books by post was detrimental to the railways. In answer to this complaint it was proved by Mr. Rowland Hill, on the evidence of booksellers, that but for the transmission of the post, such works would not be sent at all, the railway charges being prohibitory, and consequently the railway companies instead of losing, gained by the consequent increased traffic of the articles in bulk, the post office performing the service of minor distribution through its 10,000 collecting-houses, with as many portrages for deliveries, which, it is contended, ought to be utilised for the public service, since it is impossible they could be rivalled by private companies, except at augmented expense which must be paid for. On the same economic grounds Mr. Chadwick contends that a cheap electric telegraph should be united to the postal establishment, as in Switzerland, and other continental states.

Report on the Administration of the Poor Laws—1833. The government being desirous of ascertaining the progress of the inquiry conducted by the Commission, at the head of which was the late Bishop of London (Blomfield), supported by the Bishop of Chester (Sumner, now Archbishop of Canterbury), who had written articles on poor

laws for the Encyclopædia Britannica; Mr. Senior, the Professor of Political Economy at Oxford; Mr. Sturges Bourne; Mr. Walter Coulson, now the chief government legal draftsman. The commission transmitted extracts from the information they had received, chiefly reports from the gentlemen acting as assistant commissioners. These extracts, including Mr. Chadwick's report, were published and circulated previously to the preparation of the Commissioners' final report, for which these extracts served to prepare the public mind. Lord John Russell in the course of a speech in Parliament, stated to the House that if they referred to Mr. Chadwick's report, they would find there the germ of that amendment, which in his opinion had saved the country from great social evils, if not absolutely from social revolution. Lord Brougham repeatedly referred to Mr. Chadwick's treatment of the subject in the highest terms. In consequence of the most searching and cogent nature of the evidence adduced by Mr. Chadwick, his general outline of remedial measures was accepted by the public, and by the Commissioners. He was at their request placed on the Commission to aid in the preparation of their report. This report opened up by the course of investigation the economy of sanitary measures, as a means of preventing pauperism (p. 316). He next drew up for them, to be submitted to the Cabinet, a concise exposition of the measures which they agreed to recommend, and he was charged with the more full exposition of remedies in their general report. Mr. Senior being charged with the statement of the evils as developed by the evidence collected under the commission. Mr. Senior gave a general literary supervision to the—

Report from his Majesty's Commissioners for inquiry into the administration and practical operation of the Poor Laws. February, 1834.

This Report had the unprecedented sale of upwards of 9,000 copies.

On the principles and progress of the Poor Laws' Amendment Act. Reprinted from the Edinburgh Review, with notes and additions. London, 1837.

This article in a condensed form contained a reassertion of the economical and administrative principles of the measure, with an exposition of the results of such of them as had up to that time been brought into operation. The student in Political Economy, or in legislation on the topic, will find in this paper the most compact exposition of principles which are spread over several volumes of the official report.

The first Report of the Central Board of Commissioners appointed to collect information in the manufacturing districts on the employment of children in factories, and as to the expediency and means of curtailing their labour. 1833. 2nd and 3rd Reports, 1834.

These reports, and the subsequent reports of Mr. Horner, and other inspectors appointed under the Factories Act, evolve important points of political economy, as to the treatment of the stock of labor of a country, and as to whether or not, it should, on economical principles alone, be subjected for its protection to legislative interference, and administrative control. The first Report was a joint one, in which the evidence on the economical principles involved was most

specially dealt with by the late Mr. Thomas Tooke, the author of the *History of Prices*; the legislative and administrative questions, by Mr. Chadwick; and the medical testimony as to the effect of long hours of labor on the health of young children, by Dr. Southwood Smith. The agitation had been for a simple ten hours bill for the whole of the factory workers, adults as well as children. The report concluded that a case had only been made out for legislative interference for the protection of those who were not free agents, who did not make contracts for themselves, namely, very young children. That for the protection of them, the state was bound to interfere in order to prevent the future stock of labor of the country being deteriorated, bodily, by overwork, and mentally and morally, by exclusion from education. For very young children the ten hours' labor agitated for was pronounced to be too long. The board agreed to eight hours as a compromise. But Mr. Chadwick who was charged by the government with the preparation of a bill provided practically for a limitation to six hours' labor for them, so as to enable employers to work them in double sets. It was made a condition of the employment of children in the factories under regulation, that they should bring with them a certificate from a competent school teacher, that they had been three hours a day during the week preceding in a school. This was the half school time system. The administrative provisions for schools and competent teachers were crippled in the House of Lords, lest they should lead to a national system of education. It was contended by manufacturers that the restriction proposed would diminish the productive power of the country, as against foreign competitors, but testimony has been given that from the superior efficiency of the regulated labor, it is as productive as in those countries where the labor is entirely unregulated by administrative interference. From the admitted success of the half-time system introduced by the Board, it has been recommended by manufacturers for introduction into agricultural districts for educational, as well as for industrial and economical results. The extension of the principles of legislation to other branches of manufacture, and to mining operations, is constantly agitated for. The same principles of legislation are in course of extension in France, Belgium, and Prussia.

The first Report of the Commissioners appointed to inquire as to the best means of establishing an efficient Constabulary Force in the Counties of England and Wales. 1839.

One main effect of this Report was to display the services needed for a trained force for other purposes, in addition to the purely penal purposes of the pursuit of criminals, or for the prevention of the loss of life and destruction of property from fire and other calamities, in reporting on the state of the roads, and maintaining the free transit of goods. The economical elements developed were in giving new securities to production and accumulation, and of giving them in reduction of existing charges. But this could only be accomplished by an extended organization of a general trained force, whose action should centre in the towns. The government could only attempt a permissive force for the

counties, exclusive of the towns where the Parliamentary interests were too strong.

In an inquiry, before a Parliamentary Committee of 1853, into the fragmentary execution of the measure in various counties, it was proved on the evidence of farmers that it gave an increased value to land, and that when fairly carried out, even without any combination of the towns, the expense of the new county police did not exceed that of the old parochial constables, and that the additional new force might be conferred, gratis, by an improved administration. Only a further extension of the permissive principle was, however, attempted by the government, and that by a payment of a proportion of the expense from the consolidated fund. The first report developed the principles of the organization of a preventive police service. Materials were collected for the preparation of another report on the principles of prevention, and on the preventive action of a police service when organized.

The general report on the Sanitary Condition of the labouring population of Great Britain. 1842.

Nearly 10,000 copies of this report were sold or authoritatively circulated. In the dedication to Mr. Chadwick, of a treatise on the decrease of deaths by the progress of civilization, by Dr. Muroc, of Göttingen, and Dr. Willis, the librarian of the College of Surgeons, they treat this report as beyond all question one of the most valuable contributions that has lately been made to the noblest department of medical science, the art of preserving the health of the community, and will have an influence upon the human family as long as it exists.

The leading conclusions contained in this report, which have a bearing on economical science, are thus stated.

That high prosperity in respect to employment and wages, and various and abundant food, have afforded to the laboring classes no exemptions from attacks of epidemic disease, which have been as frequent and as fatal in periods of commercial and manufacturing prosperity as in any others.

That the formation of all habits of cleanliness is obstructed by defective supplies of water.

That the annual loss of life from filth, and bad ventilation, are greater than the loss from death or wounds in any war in which the country has been engaged in modern times.

That of the 43,000 cases of widowhood, and 112,000 cases of destitute orphanage, relieved from the poor-rates in England and Wales alone, it appears that the greatest proportion of deaths of the heads of families occurred from the above specified and other removeable causes, that their ages were under 45 years, that is to say, 13 years below the natural probabilities of life, as shewn by the experience of the whole population of Sweden.

The experience of the effect of sanitary measures proves the possibility of the reduction of sickness in the worst districts to at least one-third of the existing amount. Amidst classes somewhat better situated, it was possible to reduce the sickness to less than one-third, it was an under-estimate to take the probable reduction at one-half. Taking it, however, at one-half, by the new payment of 1½d., or say 2d. weekly, for

drainage, the occupants of the tenements will save 7½d. of the weekly contribution for an allowance of 1s. per week each during sickness. But the allowance insured to be paid during sickness only replaces the earnings; the sickness, besides his own misery, entails the expense of medical attendance, which, at the usual rate of insurance in medical clubs, would be 5s. or 6s. per annum for such a family. This would also be reduced one-half, making the total family saving at the least 9d. weekly. But the single payment for structural alterations is to be regarded as general, and as a means of affecting the whole of the objects for the whole of the population. For this 2d. each tenement, or 1d. each family, then, they will not only save double the weekly amount, but they will save in the wear and tear of shoes and clothes from having a well drained and well cleansed, instead of a wet and miry district to traverse, they will also save the sickness itself, and each individual will gain a proportional extension of a more healthy life. In a district, where the wages are not one-half the amount above stated, the expenditure for efficient means of prevention would still leave a surplus of gain to the laborer.

These are the chief gains on the side of the laborer, but in general, every laborer, over and above what he consumes himself, produces enough to repay the interest on capital, and cost of superintendence, or the profits of the employer. The loss of this extra production is the loss of the community during the whole time the services of the laborer are abridged by sickness or death. To this loss is to be added, where the laborer has made no reserve, the loss of the cost of his unproductive maintenance as a pauper, and of medical attendance during sickness.

The existing insurance charge then represents the existing charge on the labouring classes from the loss of wages consequent on sickness, to which charge might be added the existing additional charge denoted by the insurance on account of the abridged duration of life and more frequent deaths."

This report, at the Birmingham meeting of the National Association for the Advancement of Social Science, Lord Stanley, as President of the Health section, stated, had been, ever since its application, the chief text-book of sanitary science.

A supplementary report on the results of a special inquiry into the practice of interments in towns, made at the request of Her Majesty's principal Secretary of State for the Home Department. 1843.

This report prepared the materials for the legislation for the discontinuance of the practice of intramural interment, now in progress in England and Wales. It displayed the practice of secret murder for burial money, and represented the need of the appointment of independent officers of health, to verify the cause as well as the fact of death, for the protection of survivors. It represented the need of reducing funeral expenses for the poor, and further, displayed the terrible condition in which they frequently were placed by the occurrence of death, and the prolonged retention of corpses in the only living and sleeping-room of the survivors, and urged the adoption of the plan of reception chapels for

keeping the remains of the dead until provision could be obtained for their proper interment. He renewed the subject of the state of the provisions amongst the labouring classes, for insurances against the casualties of sickness. Under the general Board of Health, of which Mr. Chadwick was the chief paid commissioner, with the assistance of Dr. Southwood Smith, as medical commissioner, the investigation was renewed, and a report made with a view to the special application of the principles of amendment in the metropolis. But these were frustrated by local opposition. The course of duty, according to Mr. Chadwick, was to submit complete remedies, whether they were in advance of the legislative administrative capacity of the time or not, and to leave to others the responsibility of cutting them down, or adapting them by compromises. This individual bent is exhibited in the following concluding passage of the report on interments of 1843.

"I would in conclusion beg leave to repeat and represent urgently, that Her Majesty's Government should only set hands to this great work when invested with full powers to effect it completely, for at present there appears to be no alternative between doing it well or ill, between simply shifting the evil from the centre of the populous districts to the suburbs, and deteriorating them, fixing the sites of interments at convenient distances, forming numerous separate and weak, and yet enormously expensive establishments, aggravating the expense, and physical and moral evils of the delay of interment, diminishing the solemnities of sepulture, scattering away the elements of moral and religious improvement, and increasing the duration and sum of the existing evils. There appears to be no distinct or practicable alternative between these results, and affecting such a change as, if zealously carried out, will soothe and elevate the feelings of the great bulk of the population, abate the apprehensions of the dying, influence the voluntary adoption of beneficial changes in the practice of obsequies, occasion an earlier removal of the dead from amidst the living to await interment, and insure the impressiveness of the funeral service, give additional securities against attempts on life, and trustworthy evidence of the fact of death, with the means of advancing the protection of the living against the attacks of disease, and at a reduced expense provide, in well arranged national cemeteries, places for public monuments, becoming the position of the empire amongst civilized nations."

On the demoralization and injuries occasioned by the want of proper regulations of laborers, whilst engaged in the construction and working of railways. London, 1845.

Among the preventible causes of pauperism which came within Mr. Chadwick's observations, was the excessive number of accidents occurring to laborers in the course of the construction and working of railways, and he determined to call the special attention of the public, and of Parliament to them, which he did by a paper, read at the statistical society of Manchester, published as above, in a pamphlet.

He shewed that from the reckless manner in which some of these works near Manchester were conducted, the casualties of wounds and per-

manent disablement, and deaths to laborers, were as great as those occurring to equal numbers of soldiers in battle, and that by the hulk system, they are defrauded of part of their wages, and by the mode in which the workmen were brought together, they were led into habits of intoxication, so that the extraordinary expenditure in wages did mischief rather than otherwise to those who ought to benefit by it. He procured the appointment of a committee of the House of Commons to investigate the subject. In respect to the injuries, disablement, widowhood, and orphanage occasioned in the course of the works, he mentioned, as a general principle applicable to all large works, mining works, collieries, or other similar undertakings, that the whole of the pecuniary consequences ought to be charged on the employers, and not be thrown upon the ratee, or upon society at large; even assuming that they were pure accidents. If, they were assumed as entirely unavoidable, then they should be charged upon the consumers of the commodity, in the production of which they occurred. The employers would then charge it, in the case of collieries and mines, upon the cost of production, to which it would form only a small addition, whilst it would constitute a bounty on careful arrangements in the selection of educated and more safe workmen, to whom for the gain to be obtained from the greater safety derivable from greater intelligence, it would be worth to pay better wages on account of that education, and that such employers on a large scale, ought not to be allowed to charge upon society the consequences of employing, for the sake of low wages, ignorance in conducting dangerous works, which could only be safely conducted by intelligence. The attention directed to the subject led to partial legislation by Lord Campbell's Act, which as a compromise with various interests in the House of Commons, limited the compensation of survivors to cases where blame could be proved. This limitation it has recently been contended is prejudicial to the employers, as involving them in litigation, for in the larger proportion of accidents blame is imputable, and as preventing the imposition of the costs as a regular insurance charge upon the commodity which they might otherwise do.

We may observe that the principle contended for by Mr. Chadwick, that employers should be answerable to workmen for accidents occurring to them in their business, is to a considerable extent, if not entirely, the law of Scotland, where it is held that if one workman injures another in a manufactory, the injured workman has a claim against the employer for the carelessness of his fellow workman. A case of this nature was decided recently by the Court of Session, in accordance with what was always understood to be the common law of Scotland, it has however been taken up by appeal to the House of Lords. We agree with Mr. Chadwick that it is a very beneficial principle, and we hope the decision of the Court of Session may not be reversed.

Report on Quarantine. 1849.

Succeeding Reports made under the Metropolitan Sanitary Commission were partly administrative and partly medical, the medical course of investigation and exposition being assisted by

Dr. Southwood Smith, Professor Owen, and Mr. Hodgson of the College of Surgeons. These reports chiefly relating to typhus, cholera, and other forms of epidemic disease, extended the demonstrations of their preventibility and their independence of poverty, as invariable antecedents, as assumed by most of the followers of Malthus.

Other reports followed, setting forth the results of further investigations, under the general Board of Public Health, when Dr. Southwood Smith acted as medical commissioner. The most important of these was that on quarantine, setting forth the errors prevalent on the subject, and the futility of quarantines, as a means of preventing the spread of epidemics, and displaying the evil effects of these errors, morally, on the public mind, and economically, in checking intercommunication. This report was translated into French and Italian, and circulated widely on the continent. The medical and administrative doctrines which it put forth were recognised as sound by the medical authorities of France, and were in substance adopted by a sanitary congress held at Paris, at the instance of the French government.

Report on Yellow Fever. 1854.

This report gave further illustration of the doctrines put forth in the report on quarantines, and displays the detection of false facts promulgated in support of the instructions for their enforcement. Several assistants were sent out from the Board of Health to deal with the epidemic cholera in the West India Islands. The report of one of these assistants, Dr. Milroy, contained very important facts, displaying the barbarous state of the population and of administration, and the great waste of productive power and pecuniary loss from an excessive mortality, all of which admitted of economical prevention by sanitary measures.

A series of reports followed, setting forth the results of investigations under the General Board of Health, involving economical, as well as engineering and sanitary results. The economical results displayed being the gain of populous districts from steam power and well-directed engineering appliances, in the collection of water from long distances, and its distribution to the tops of the highest tenements, at a far lower rate of expense than by the hand labour of inmates, or of water-carriers, even if water was to be had from wells, or ponds at the doors, gratis—also the practicability of the removal of all foul water and decomposing refuse from towns by self-cleansing channels, at a cheaper rate than any cleansing of cesspools, or any removal of foul matter by hand labor. It was shewn that the expense of sanitary engineering appliances, when in complete action, would be considerably less than the insurance charges against the expense of the excessive disease and premature mortality arising from the atmospheric impurities which these appliances, when directed by competent sanitary science, prevent. Demonstrations were given that the distribution of the refuse of towns was to be effected with the like economy by engineering appliances, as compared with hand labor. The system of works laid down was that of a venous and arterial system of constant supply, of circulation, and removal from towns. One collateral result of these appli-

ances was the removal of inferior classes of laborers, engendered by the inferior conditions of labor in towns, created by foul and degrading processes.

Report of the General Board of Health on the Supply of Water to the Metropolis. 1850.

Minutes of information on the drainage of the land forming the sites of towns; on road drainage, &c. 1852.

Minutes of information on the drainage of dwelling-houses, and the sewerage and cleansing of towns. 1852.

Minutes of information on the application of sewer water and other town manures to agricultural production. 1852.

In these reports are to be found deductions from wide past experience for the guidance of new colonies, in the selection and treatment of new sites and habitations, to avoid the waste of life and the loss of power by which the progress of so many have been impeded.

Report on the administration of the Public Health Act, from 1848 to 1854.

This report sets forth that by more systematised works, two houses and two towns might be supplied with water constantly and well, at an expense heretofore incurred for supplying one intermittently and ill; and three houses and three towns drained well at an expense hitherto incurred for doing one ill, and that better considered local privileges were conferred at one twentieth the expense theretofore incurred by the old procedure for obtaining local Acts of Parliament. In the latter Report, there was contained a vindication of the economy of administrative principles of local and central action, enunciated by Mr. Chadwick in the following terms respecting the proper position and principle of action of a central board. "First, as a responsible agency for the removal of those evils, in the repression of which the public at large have an interest. Next, as an authority for appeal in disputes between conflicting local interests. Thirdly, as a security for the due distribution of local charges, for the protection of minorities and absentees against wasteful works or improper charges; and fourthly, as a means of communicating to each locality, for its guidance, the principles deduced from the experience of all other places from which information may be obtainable." All the legislative arrangements proposed had a wide economical basis in the prevention of one form or other of waste.

On the application of Sanitary Science to the protection of the Indian Army.

This paper was read at the Liverpool meeting of the Association for the Advancement of Social Science, 1858, and published in their transactions. In it Mr. Chadwick adduces evidence to shew that the doctrine that the Anglo-Saxon race, or that Europeans cannot live, or labor, or last, or that their children cannot live in India, or in colonies in the tropics, is wholly erroneous. That the excessive mortality is due in part to local causes of disease, jungles, marshes, stagnant and impure air, which are removable by engineering art directed by sanitary science, and in part to grossly bad habits of life, and ignorant treatment of children. He shews that under moderately good conditions the death rate in India is lower than in some of the English cities. One result

of this exposition and of personal representations, was the appointment of a special commission to investigate the means of applying the means of prevention on which the permanence of European, or the more civilized dominion is dependent.

On the Reorganisation of the Civil Service.
1855.

After the disasters in the Crimea, when administrative reform was loudly demanded by the public, the then Chancellor of the Exchequer, Mr. Gladstone, asked the most experienced of the civil servants for their views as to the most eligible measures of reform. This paper of Mr. Chadwick's displayed the radical defect of the service in ill-arranged business conducted by men appointed and promoted by political patronage, and advocated the superior economy of the service of a few highly qualified, as against many inferior and ill-paid public servants. He repudiated as utterly untrustworthy "pass examinations" for first appointments, and renewed the advocacy of open public competitive, as the only safe test of capabilities, combined with prolonged probations. The principle of open competitive examinations was advocated in two lectures, the one at the meeting of the British Association at Dublin, the other at Leeds, both of which were published in the transactions of the Statistical Society. One economical ground taken as respects these examinations was, that they saved to the public what Mr. Babbage has designated as the labor of verification, and when conducted in a trustworthy manner performed the service of "hall marks" in plate, or coinage in metals. The principle of open competition was affirmed by Parliament, in several divisions against the government.

At the instance of Mr. John Mill, the principle of the open competition was introduced into the Civil Service of India, and at the instance of Sir Charles Trevelyan, and Sir Stafford Northcote, and Mr. Gladstone, into the English Civil Service, at the instance of Mr. Monsell into the scientific department of the army, and is now under partial trial.

De l'avenir de l'agriculture, et des travailleurs agricoles; mémoire présenté au congrès international de bienfaisance de Bruxelles. Publié dans *Le Moniteur Belge*.

Another part of the same topic was treated in a paper published in the transactions of the Society of Arts, mentioned below, on the future of the laborers in the mechanical arts. The object of both papers was to prove that improved and refined processes, or improved machinery, could only be conducted by workmen endowed with increased intelligence. That this intelligence could only be evoked by an interest in the result, that is to say an augmented share of the produce, or increased wages, and that these conditions, or the main one, the interest in the result, is almost entirely independent of the ordinary economical elements of the demand and supply of labor. In illustration of this doctrine, instances were given when on the occasion of a falling market it became necessary to reduce the cost of a manufacture and to make arrangements to enable one workman to manage machinery theretofore managed by two; who had each 18s. a week wages. But though in the depressed labor mar-

ket men were obtainable at a lower rate than 18s. a week wages, it was deemed necessary, on account of the increased responsibility of the superintendence of an increased amount of machinery, to give 24s. a week as wages. The term self-acting machinery was shown not to be of general application, and that the amount of production from machinery was governed more largely than is supposed by the interest and skill in working it. All the large advances in the use of machinery had, as a general rule, been accompanied by an average increase of wages, as well as by a reduction in the price of production. The future of agriculture, that is to say, its greatest profit, was shown to be, instead of a thin production, by rude and simple processes on wide areas, a high production on narrow areas, by which rents, expenses of roads, hedges and transport, are reduced, but for this high cultivation machinery, and more skilful labor, is needed, which increased skill can only be obtained by an increased interest in the work, that is to say, by increased wages, or a proportionate share of an augmented produce. These economical elements he propounds as grounds of hope for a bright future for the masses.

Mr. Chadwick's paper inserted in the *Journal of the Society of Arts*, November 14, 1856, gives many interesting details of the effect of machinery on wages, quite overthrowing the fallacy that machinery lowers wages, whereas its almost invariable tendency is to raise them. It also amply confirms what we have said (*Elements of Political Economy*; p. 106. *COST OF PRODUCTION*) of the fallacy of Ricardo's law that *cost of production regulates value*; for even in the cases to which that law is apparently applicable, it is often just the reverse, it is *Value that governs cost of production*. Mr. Chadwick says p. 805. "The periods of manufacturing distress have heretofore been the chief periods of improvement to the laboring classes themselves. It was an aphorism of the father of the cotton manufacture in England, Mr. John Kennedy, of Ardwick Hall, recently deceased, whose first spinning was by hand—then by a machine worked by a donkey—then by a horse—then by a Newcomen's engine—and lastly by a Watt of 500 horse power, and who had taken part in all the vicissitudes of the cotton manufacture from its commencement, that latterly no extensive improvement was made in the manufacture except in periods of *thread-bare profits*. At these periods, when demand is slackened, when prices fall, the manufacturer is driven to consider and execute whatever improvements he or others can devise, by which the expense of production may be reduced, and his profits be maintained at the reduced price of the market." Which shows very clearly that the manufacturer is obliged to *accommodate cost of production to market price*. The very same thing is notoriously true regarding agriculture. It is true that during the high prices caused by the war and a depreciated paper currency, vast quantities of poor land were taken into cultivation, but it is also true that in recent years the apprehended fall in the price of corn from the repeal of the corn laws, was the great parent of the marvelous progress in agricultural science of late years. In each case value was quite independent of cost of production; in the former case the increased value permitted increased cost of production, in

the latter, the diminished value compelled a diminished cost of production.

Mr. Chadwick also clearly explains the apparent paradox of manufacturers extending their works in times of depression, when unreflecting persons are apt to accuse them of reckless speculation. "But," says he, "on inquiry, I have always found that the capitalists knew best what they were about, and that the investment, instead of being more dangerous, was in reality more safe than ever.

"The economical sequence has appeared to me to be as follows:—

"Long depressed markets have necessitated the consideration and adoption, by the manufacturer, of improvements in processes and machinery, by which the cost of production is lowered to meet the fallen demand.

"These improvements have necessitated for their execution improved labor, at improved wages.

"The reduced price rendered possible by the reduced cost of production, has brought the commodities within the reach of greater numbers, and has stimulated and extended the habitual consumption.

"The restored and extended demand has, in the case of articles of what may be deemed primary necessity for civilised life, been from a higher to a lower class of consumers, who are the least affected by the fluctuation of fashion, or disposed to sudden changes of habit; and hence the consumption is placed upon a wider and firmer basis, rendering employment at the improved wages less liable to extreme fluctuations.

"The improvements in processes and machinery, which have occasioned a demand for improved labor, are attended with the additional security to the operative, that they compel the manufacturer to resort rather to short time, and struggle to the last before he stops his works, for if he once disperses his whole establishment, he may not again get such another together, and on such occasions, he often finds himself in this position,—that whilst he manufactures without a profit, or even at a loss, he will incur more loss by the deterioration which his machinery undergoes when stopped, than by keeping the works going."—(Cost of Production.)

The economical results of different principles of legislation and administration in Europe, especially those involving the principle of competition for the field, as compared with the principle of competition within the field of service. Read before the Statistical Society of London, Jan., 1859.

This paper displays, as a master evil, defective economic science, as a source of extensively disastrous legislation in railways, public works, and public service of intercommunication, and the production and distribution of bread and beer, arising from the public ignorance, that there are different conditions of competition, sound and unsound. That whilst there are conditions of competition which ensure to the public, the most responsible, and the cheapest and best service, and which are requisite for improvements of the greatest magnitude, there are conditions which create inevitable waste and insecurity of property, which raise prices, and check improvement, which engender fraud and violence, and subject the public to irresponsible monopolies of the worst

sort. He then states the condition under which the principle was presented to him. "From 1838 to 1841, whilst examining the sanitary conditions of town populations, I found urban districts in England, where there are two or three sets of water-pipes, carried through streets which might be as well, or better, supplied under one establishment, and competitions ending in strict monopolies, bad and deficient supplies to the public, with low dividends to the shareholders, and an almost impracticability of improvement in their separate condition without augmenting the already excessive charges of the ratepayers, or further reducing the low returns to the capitalists. These competitions are what I then designated as competitions 'within the field of service,' as opposed to that form of competition I proposed as an administrative principle, 'competition for the field,' that is to say, that the whole field of service should be put up on behalf of the public for competition on the only condition on which efficiency, as well as the utmost cheapness, was practicable, namely, the possession by one capital, or by one establishment, of the entire field which would be most efficiently and economically administered by one, with full securities towards the public for the full performance of the requisite service during a given period. The principle was, upon due consideration, extensively adopted, and advocated by permanent public officers, commissioners, and disinterested public investigators, for the regulation of enterprises in railways, then at their commencement. But the views chiefly advocated by speculators and persons who profit by multiplied conflicts, who gain whosoever else loses, were adopted by parliament. The principle was, however, upon independent considerations, adopted by continental administrators and legislators, and the results stand out in wide and undeniable contrast of legislative and administrative ability and integrity. In France, for example, is a much more responsible and regular service for the public at lower fares, with higher priced materials, with dearer fuel, poorer, thinner, and less active populations, and lower elements of traffic, and yet with an average return of from seven to nine per cent. to the original shareholders of the lines worked by companies. In England we have a clashing, immensely more dangerous, unsatisfactory, and generally less responsible service to the public, fares, as contrasted with those of the continent generally, one-third higher; with fuel, iron, and machinery cheaper, and yet with an average return of only 3.06 per cent. to the original shareholders—with extensive ruin to them, with gigantic fortunes to the promoters of conflicts. In France the original shareholders have, moreover, the elements of security and further improvement to their property, whilst the French public have in reversion at the termination of their concessions, the prospect of further reduction of fares, and increased facilities for intercommunication, as a new source of revenue derivable from past economy in the reduction of the general taxation of the country. In England the greater mass of original shareholders have before them the elements of further depreciation and loss, and even ruin, by the bounty afforded by the practicability of cheaper constructions, and competitive extensions."

The paper goes over several wide fields of ad-

ministration, and gives evidence to show that regulation is necessary to the perfect freedom of competition, and of trade, by preventing the competitors from being overweighted by unnecessary establishment charges, and subjected to needless risks and losses, which are equally waste, whether paid for by the private individual, or the public. The views which the paper propounds have been recognized by the chief Economists as corrections of the earlier doctrines of competition and free trade. Mr. Chadwick has introduced the term "economical analysis" as a process practicable for political economy, corresponding to that of chemical analysis. "To give," he says, "a conception of the extent of the financial bearing of the economical question as to the cost of production and distribution on a large or a small scale, I may state that some years ago I had occasion to make what I term an economic analysis of a 4 lb. loaf of bread, that is to say, how much the cost of production, of transport, of distribution, there was in the price, when I found that at the prices and rents of the time, averaging in England 25s. per acre, the rent in the four pound loaf was about three farthings, whilst the cost of distribution was more than three half-pence. On the like economical analysis of the cost of a pound of meat to the consumer, the charge to him appeared to bear the like proportion, i.e., double the rent in the price of the commodity to the consumer. It appeared generally that the cost of distributing the produce of the soil was double the rental of the soil. It appeared by the extension of the field of service and the saving of the charges of unnecessary establishments and labor, the service of distribution might be greatly improved, and the expense reduced to less than one half, or, in other words, the result was indicated of a possible aggregate saving to the community equal to the whole of the general taxation of the country."

We have given this long account of Mr. Chadwick's works partly on account of their great practical importance to the country, and partly because they chiefly lie entombed in blue books, and other places where they are in danger of passing into oblivion, and therefore it is the more incumbent on a person who assumes the office of recording the progress of Economic Science, to bestow particular care that the labors and merits of one to whom so much is due, should meet with just appreciation.

The result of Mr. Chadwick's labors is a pregnant example of what we have always strenuously maintained, that the Inductive is the only true method of investigation in Political Economy. What clouds of wide spread and dangerous error have the investigations with which he has been connected brought to light and dispelled! What a mass of surprising and unlooked-for principles, affecting the most important interests of Society, have been discovered by following the Baconian method of Observation and Experience! And we repeat again and again that the whole field of Political Economy must be resurveyed in the same spirit. When this is done with competent knowledge, it will be found that a great deal of Political Economy is infected with a like amount of error as that part investigated by Mr. Chadwick. When properly explained, it will be found that a very large portion of doctrines cur-

rent in works on Political Economy, is nothing but transparent fallacy and delusion. And there is the greater necessity for its being done at the present day when Political Economy is made the subject of examination in the public services. A careful survey of the whole science on the method pursued by Mr. Chadwick, would produce as great a transformation in it as took place in Mechanics by the researches of Galileo.

CHADWICK, WILLIAM ARTHUR.

The National Debt no debt at all, but what it really is explained, and the "Morals of Money" considered. London, 1855.

CHAILLON DES BARRES, Baron. Born in 1784. Prefect of Creuse under the first French Empire.

Essai sur la législation des grains jusqu'à ce jour. Paris, 1821.

CHAIX, B.

Préoccupations statistiques, géographiques, pittoresques, et synoptiques, du département des Hautes Alpes. Grenoble, 1845.

CHAIX, N.

Annuaire officiel des chemins de fer. Paris, 1847.

CHALETTE, J.

Précis de statistique générale du département de la Marne. Chalons, 1844-5.

CHALMERS, GEORGE, a writer of considerable eminence in his day, was born at Fochabers, in Morayshire, in the year 1742. He studied at King's College, Aberdeen, and Edinburgh. In 1763 he went on business to America, and settled as a lawyer at Baltimore, in Maryland. At the revolution he warmly espoused the side of the mother country, and, in consequence, was obliged to leave the country and come to England. Having suffered severe losses by adopting this course, for which he received no compensation, he devoted himself to literature, and produced many works in history, antiquities, and politics, which, however, we must pass by.

In 1786 his writings had attracted notice, and he was appointed chief clerk to the committee of privy council in matters relating to trade and foreign plantations, an office which he held till his death on May 31st, 1825.

His works relating to Economic Science are:—

An estimate of the comparative strength of Great Britain during the present and four preceding reigns. London, 1786; last edition, 1804.

A chronological account of Commerce and Coinage in Great Britain, from the Restoration till 1810. London, 1810.

An historical review of the domestic economy of Great Britain and Ireland, from the earliest to the present time. Edinburgh, 1812.

Considerations on commerce, bullion and coin, circulation and exchanges. London, 1811.

This work is worth reading as containing the most complete mass of blunders and absurdities on the subject it treats of, which were yet believed in by the majority of the merchants of the day.

Comparative views of the state of Great Britain and Ireland, before and since the war. London, 1817.

CHALMERS, PETER.

Historical and Statistical account of Dunfermline. Edinburgh, 1844.

CHALMERS, THOMAS, D.D. This eminent divine, one of the very few Scotch clergymen who have obtained a European reputation, was born at Anstruther, in Fifeshire, on the 17th March, 1780. Three adjacent villages in this county are illustrious as having given birth to three of the most eminent Scotchmen of modern times, Adam Smith, Sir John Leslie, and Dr. Chalmers.

The father of Dr. Chalmers was a member of a respectable county family. He followed the business of a shipowner and general merchant, but he had several relations in the Scotch Church, which probably determined the bias of the subject of this memoir in that direction, in which he attained so great a celebrity. It is somewhat remarkable that Dr. Chalmers, long after he had attained the summit of fame as a preacher, and had published discourses which rivalled the Waverley Novels in popularity, declared that it was the highest object of his earthly ambition to complete his treatise on Political Economy. He always considered his economical writings as the greatest of his intellectual efforts, and he ranked the truths of Economic Science as next in importance to those of Religion and Ethics.

Dr. Chalmers was the sixth child, and fourth son, of a family of fourteen. The number of the family made it desirable to relieve the mother as much as possible from the care of them, and he was sent to school at three years of age, where he was very badly used. He shewed an early bent to the career he afterwards followed. One day he was found standing on a chair, vigorously preaching to a single auditor, one of his schoolfellows.

In his 12th year he was sent to the University of St. Andrews, where he was the youngest boy but one, and that one was John, Lord Campbell, Lord High Chancellor of England.

During two sessions he does not seem to have shewn any particular signs of genius. But at the close of the third he suddenly conceived a strong passion for mathematics, and at this time may be dated the commencement of his career of intense intellectual activity.

Influenced no doubt partly by the number of his paternal relations in the Scotch Church, he now determined to adopt that profession, and he passed the preliminary step, and obtained a licence to preach in 1799. But instead of entering on his profession at once, he went to Edinburgh, and attended the lectures of Dugald Stewart, Robinson, Playfair and Hope. He also gave much attention to Ethics and Politics, and was taken with a juvenile ardor for Godwin's *Political Justice*.

While waiting for a parish of his own, he went to assist a minister near Hawick. The difference of the administration of the poor law in that manufacturing district, and the effect of a legal assessment for the relief of the poor upon their habits and character, contrasted with its administration in the country parish he afterwards obtained, struck him very forcibly, and originated that persevering opposition to all legal assessment for the relief of the poor, which he so ardently maintained throughout his life.

In 1802, he returned to the neighbourhood of St. Andrews, where his great ambition was to obtain the office of assistant to the mathematical professor in the University. This gentleman had long been a confirmed invalid, and had availed himself of the services of a series of assistants, some of whom became distinguished men. In the autumn of 1802, he obtained the appointment he so much coveted.

In May 1803, he was presented to the living of Kilmany, about nine miles from St. Andrews, partly through the influence of his father's relations. He remained there till 1815.

A lecturer on mathematics would appear to be about the last person to have a field for the display of eloquence. Nevertheless Chalmers's peculiar genius soon showed itself. He introduced such a degree of fervid eloquence into his lectures as to excite the utmost enthusiasm among his pupils. The extraordinary phenomenon of an eloquent mathematical lecturer horrified and alarmed the College Dons. The professor gave certificates to the pupils without consulting him. He took umbrage at this, and remonstrated with some warmth, and the Professor seized the opportunity to dismiss him on the ground of incompetence.

He was deeply mortified at being not only deprived of the office which was the object of his ambition, but at having an unmerited stigma cast on his capacity. He adopted the extraordinary resolution to open an opposition to the University in the town. A rebellion against the University under its own nose! The quiet folks of the town were dismayed, the professors were furious, and combined against him, and threatened the students with their severest displeasure if they should venture to attend his lectures. The students were divided, and a considerable number went to hear him, in defiance of the College authorities.

His mathematical lectures were decidedly successful, and he completely turned the tide of favor in the town by giving a course of lectures on Chemistry, illustrated with experiments. These were immensely popular, and he repeated them on several occasions with equal success. Besides these he preached at Kilmany every Sunday.

In 1804, he was a candidate for the chair of natural philosophy at St. Andrews, and in 1805, for the mathematical chair at Edinburgh. The contest gave rise to much acrimony, and was long remembered in the University. The vacancy was created by the transfer of Playfair to the chair of natural philosophy. He favored the appointment of Leslie, and published a pamphlet in which he maintained that the vigorous prosecution of mathematics was incompatible with clerical duties. Chalmers published an anonymous reply, in which he said that two days in the week were sufficient for the due performance of all clerical duties, and that the minister might have the remainder to devote to any pursuit that interested him. This pamphlet he afterwards disavowed with much penitence and humiliation.

In 1807, he published his first economical work, *An Inquiry into the extent and stability of national resources*; in consequence of Napoleon's measures to cripple English commerce. The work met with considerable success, and he was preparing a new edition of it, when he was seized with a dangerous illness which brought him to the verge

of the grave, and which deprived him of all power of work for a year.

This illness produced a complete change in Chalmers's moral and spiritual nature, and his energy taking a new direction, eventually brought about that great event which gives an historical interest to his name.

The question of patronage has always been a festering sore in the Scotch Church. There had been so many contradictory Acts of Parliament, so many changes as one party or the other got the upper hand, and so many breaches of faith by the government, that the whole subject of patronage was involved in the utmost perplexity, and several schisms had been the consequence. During the latter part, however, of the last century, the Scotch Church had acquiesced in lay patronage in consideration of State support. The party who did this were called the "moderates." A small minority, however, always contended for spiritual independence, while maintaining the necessity of state endowments. This party was called the "evangelicals."

Chalmers, up to the time of his illness, had belonged to the moderate party. In consequence of his reflections during that time of trial, he joined the evangelical party after his recovery. His convictions were strengthened by the preparation of the article *Christianity* for Dr. Brewster's Encyclopædia. The fruits of this change were soon visible in the altered tone of his preaching, which exhibited a depth and earnestness which he never displayed before, and the fame of the minister of Kilmany, soon spread through the country, and drew crowds from far and near to hear him. He now devoted himself to parochial duties with all the innate fervor of his character, and formed those views of parochial organisation which he afterwards carried out and advocated with such zeal and perseverance.

His fame had now spread through the country, and in 1815, the town council of Glasgow appointed him to the Tron Parish. His success was instantaneous and immense. Glasgow, and soon all Scotland, rang with his fame, which was not long reaching the metropolis. In 1816, he gave a series of week-day sermons on the connection between Astronomy and Religion. They were given in the busiest time of the day. Glasgow merchants and men of business deserted the Exchange and their counting houses, lawyers gave their clerks leave of absence to hear him. There was almost a suspension of business. When they were published they ran through nine editions of 20,000 copies in one year. One of the Waverley Novels was published a month before them, and it was a neck-and-neck race between them.

Glasgow had now commenced taking those prodigious strides which have continued unabated to the present day. But her ecclesiastical provision had not kept pace with her population. Chalmers, whose whole soul was now absorbed in revivifying the ancient parochial organization of Scotland, proclaimed the necessity of erecting twenty new churches in Glasgow. In consequence of his urgent solicitation, the Town Council at last agreed to form one new parish, and they appointed him to it, in order to give him an opportunity of carrying his schemes into effect.

The parish erected for Dr. Chalmers was named St. John's, and contained a population of upwards of 10,000, consisting chiefly of operatives and the poorest classes of the population of Glasgow. The church was finished in 1819, and in that year he was appointed minister. After long negotiations and much opposition, he succeeded in severing the parish from the general system of poor-law management of Glasgow. It was in future neither to be assessed, nor to receive any assistance from the other assessed parishes in the city.

Dr. Chalmers, as we have said above, had, before obtaining the living of Kilmany, acted as assistant to the minister of a parish near Hawick. In the latter parish there was a legal assessment for the poor. On his settlement at Kilmany, which was an ordinary country unassessed parish, the extraordinary difference in the sums applied to the relief of the poor, in proportion to their numbers, struck him forcibly. But the difference between the character and spirit of the paupers in the two parishes made him reflect more deeply still. While those of Hawick showed nothing but discontent, and tried every subterfuge to get the parish money, which they looked upon as their right, those of Kilmany were grateful for the assistance they received, and were satisfied with much less. He also remarked the great deterioration in character of those poor of Kilmany who had been to Dundee. From this time forward, a rooted abhorrence of all legal relief took possession of his mind, and to oppose this system he devoted much of his writing.

He had urged this so earnestly on the authorities of Glasgow, that they determined to let him try an experiment in St. John's. The sum which had been expended hitherto in that district was £1,400, of which the morning and afternoon collections produced £400, and the evening one £80. Dr. Chalmers undertook to keep down the pauperism of this district and give all due relief, with no other fund but that arising from the collections.

His plan was received with ridicule and incredulity. No one could believe that the thing could be done. In fact, as the projector said, it was infinitely easier to do the thing than to persuade any one that it could be done. He divided the parish into twenty-five districts, and in each appointed a deacon who had the charge of fifty or sixty families. It was the deacon's business to make himself acquainted with the circumstances and resources of each family, and all applications for relief were to be made to them alone.

The public had thought that it was a desperate attempt to keep down the pauperism on the collections solely. Dr. Chalmers thought that they were a great deal more than enough. He would only trust the evening collection of £80 to the deacons, for fear that they might be extravagant. Every application was received and treated with the greatest courtesy and attention, but was investigated with the greatest rigour. By these means circumstances were suggested, and resources pointed out, which in most cases obviated the necessity of receiving public aid.

The success of the experiment was marvellous, and exceeded the most sanguine expectations. At the end of three years and nine months, the fund

had been found not only amply sufficient for its purpose, but there was a surplus of £900, of which £500 was allotted to the endowment of schools. The sum spent on the relief of the poor was reduced from £1,400 to £280. Dr. Chalmers said in a subsequent writing, that after the first month he never inquired into a single case, and that the average duties of the deacons did not exceed three hours a month.

The history of this experiment deserves to be read. It met, however, with no imitators, and was abandoned in 1837, to the infinite chagrin of its originator.

The immense popularity of Dr. Chalmers made serious inroads on his time, and his extraordinary activity began to tell on his constitution. After having repeated offers made to him to accept other appointments, he was glad to take refuge in the comparative repose of the Chair of Moral Philosophy in his own University of St. Andrews. With this chair Political Economy was united, and he gave a course of lectures on this subject in 1825.

In 1827, he received the offer of the chair of Moral Philosophy in the University of London, which, however, he declined.

In 1828, he was appointed to the Chair of Divinity in the University of Edinburgh, which he continued to hold till 1843.

In 1831, he was requested to write one of the Bridgewater Treatises; the subject allotted to him was, "On the adaptation of external nature to the moral and intellectual constitution of man." In 1834, he was elected a Fellow of the Royal Society of Edinburgh, and a Member of the Institute of France, and in 1835 he went to Oxford to be invested with the complimentary degree of D.C.L.

In 1832, he published his treatise on Political Economy. He also gave a course of lectures in defence of religious establishments, and in 1840 he read a paper at the meeting of the British Association at Glasgow against a pamphlet Dr. Alison had published advocating a general poor-rate.

These things, though they are what chiefly concern us here, are but minor events to the one in which Dr. Chalmers next played the leading part. But we rejoice that we are prevented by our plan from adventuring on the stormy waters of Scotch polemics. We need only tell our readers that Dr. Chalmers was the hero and moving power of the disruption of the Scotch Church in 1843.

Whatever judgment may be formed of that movement, it is perfectly certain that it brought on the very thing which Dr. Chalmers had been combating so energetically for 25 years, namely, a legal assessment for the poor. Throughout large districts of country, the people, led by their ministers, abandoned the establishment in a body. There were consequently no collections at the church doors to relieve the poor. The consequence necessarily was a Poor Law, which was enacted in 1845.

At the disruption Dr. Chalmers of course resigned his Professorship of Divinity at Edinburgh. The Free Church founded a College of their own, of which he was appointed Principal and Professor of Divinity. In this capacity he passed the last four years of his life, in which all his energies were tasked to organise the infant establishment. In

May, 1847, he went to London to give evidence before a Committee of the House of Commons, as to the refusal of sites to the Free Church by some proprietors in Scotland. After visiting different parts of England he returned to Edinburgh, to be present at the meeting of the General Assembly of the Free Church, but on the 31st of May he was found to have died during the night.

Whatever may be thought of the event of Dr. Chalmers's life which will give him his greatest historical celebrity, and on that subject opinions will of course differ, there can be no doubt that he was one of the most remarkable men that Scotland has produced. All contemporary writers testify to the extraordinary personal influence he acquired. Nor was his fame merely provincial. The sensation he made in London was equally great to that which he made in Glasgow. When he preached in London in 1817, the church was crowded for hours before the service began, ministers and statesmen of all parties crowded to hear him, and in their published correspondence there is abundant evidence of the extraordinary impression he made on the ablest men in the country.

Inquiry into the extent and stability of national resources. Edinburgh, 1807.

Dr. Chalmers published a collection of his works, 1836-42, in 25 vols., in which the greater part of his economical writings are included. We refer to this edition.

Vol. VI. *Commercial discourses*, delivered in 1820.

Vol. XIV, XV, XVI. *On the Christian and Economic polity of a nation, more especially with reference to its large towns.*

These three volumes were originally published at intervals. They are chiefly for the purpose of advocating Dr. Chalmers's favorite plan of parochial organisation. Vol. XVI. is particularly worth reading, as in it he has clearly seen and enforced the doctrine that we have so often maintained, *that it is the product that gives value to the labor, and not labor that gives value to the product.* He says, p. 10, "It has all the self-evidence of truism, and yet it is strangely overlooked, both in economic reasonings and in economic regulations, that the worth of that by which a thing is done is all derived from the worth of that for which the thing is done." * * *

"It is forgotten that the end is greater than the means; and although Smith has formally asserted that the end of all production is consumption, yet even he in the course of his argument seems often to have forgotten this maxim, in a certain value, *per se*, which he attaches to trade and manufactures. Now it ought ever to be kept in mind, that trade and manufactures have all their worth and significance as subservient to, and none whatever as apart from, the enjoyment of consumers. The worth of commerce lies wholly in the *terminus ad quem* and not in the *iter ad quod*.

"Now, both by politicians and political economists, this principle is traversed. It is in the working up of the commodity, in the buying of it, and selling of it, and transporting of it, in the succession of various movements and exchanges which it is made to undergo, in that whole series of transactions through which it passes from him who first put forth his hand upon its raw material, to him who made the final purchase of it, so that it ceased to be an article of merchandize any

more, it is in these various steps which properly belong to the manufacture of the commodity or to the merchandize thereof, that the whole prosperity of our land is conceived essentially to lie." These are, it will be observed, the same doctrines as published by Dr. Whately about the same time, when he said that men dive for pearls because they are valuable, and that they have not value because men dive for them. It is the entire reversal of the Ricardian system of Political Economy.

Vol. XVII. *On Church and College Establishments.*

Vol. XIX., XX. *On Political Economy in connection with the moral state and moral prospects of society.*

This is Dr. Chalmers's most elaborate work on Political Economy, and as he himself says, it is in no sense a formal treatise, but rather some materials for one. At p. 98, he has seen the true function of money. "There is nothing in the intervention of money which should disguise the real character of the operation. If landed proprietors be the chief customers for the commodities in question, they do not just give on the instant the *ipsa corpora* of their wealth, but they give what is equivalent, a lifting power to a certain extent, or an order to a certain amount for the produce of their land. This passes from the hand of the capitalist to the hand of his workmen, and they on presenting it at a shop or market, just get in food, that chief article of maintenance, the proper and essential return for their labor." This is in perfect conformity with the doctrine of Aristotle, Burke, Bastiat, &c., that money is a pledge for the future, or general credit. (CURRENCY.)

J. B. Say has been supposed to have demonstrated the impossibility of a general glut, or general overproduction of all commodities. Dr. Chalmers devotes his first five chapters to a refutation of this doctrine. There is much ingenious speculation in this, but we must forbear to examine into either of the opposing doctrines, because there is nothing really practical in either of them. Dr. Chalmers says, p. 167, "So that it is not in opposition to any apprehended practical evil, but in opposition to a theory, that we have been induced to frame, or at all to insist on, our present argument." This being so, it is scarcely worth while to say much about it.

In taxation, Dr. Chalmers has adopted to the full the doctrine of the French Economists, that all taxes fall ultimately on the land. He, however, supports this proposition by a different course of reasoning. His proposal is that all taxes should fall exclusively on the net rent of land, and that they should all be paid by landlords and mortgagees on land. He maintains that the funds are a mortgage on land, and that the landholders and fundholders should therefore bear the whole weight of taxation. A somewhat startling proposal. He ought also to have included tithe-owners. He says, xix., 304, "And it were no small advantage if landlords were made to bear the whole burdens of the state ostensibly, as they do really; that the importance, the permanent importance of landed wealth and of the landed interest, would stand forth nakedly and without disguise to the recognition of all men. So that it were well for them,

if compelled, even though against their will, to pay all taxes. The men who hold in their hand the necessities of life, have the obvious superiority over the men who but minister the superfluities, or the comforts. They have the natural ascendancy, and we think it wholesome and befitting, that they should have the political ascendancy also. We hold it the most exceptionable feature in the modern scheme of representation, as being a violation of the rightful and natural order, that the agricultural interest is not sufficiently represented in Parliament." Dr. Chalmers proposes to deliver over the exclusive political power in the State to the landed proprietors; somewhat a strange sentiment coming from such a quarter.

Chap. XI. is, *On the distinction between productive and unproductive labor.* Adam Smith has been betrayed into a most extraordinary self-contradiction on the subject of productive labor. While he fully admits that education is realized capital, and that intellectual abilities are part of the wealth of the nation, he has denied the title of productive labor to those whose business it is to supply that which he acknowledges to be capital. Mr. McCulloch has well shewn this inconsistency. Dr. Chalmers being one of the class so unceremoniously designated as "unproductive laborers," naturally resents such a stigma. In this chapter he gives a most complete and crushing reply to this false distinction. It is one of the very best in his whole work, and deserves attentive reading. (LABOR.)

Chap. XII. *On the law of Primogeniture.* This too is an admirable chapter. It strongly opposes the breaking up of the land into small properties. Dr. Chalmers, however, shares an error very common among writers in speaking of the law of primogeniture. He argues throughout, as so many others do, that the law compels a man to leave all his real property to his eldest son. This is an error. The eldest son only takes by right in the case of intestacy. The law leaves every man free to break up his property if he pleases, though no doubt it permits of its being tied up in certain cases. It is the general feeling of the country that maintains the custom of primogeniture. Dr. Chalmers shews that a gradation of ranks is the true basis of stability. p. 370. "For the best construction of a social edifice in every large country like ours, we would have a king on the throne—not rising like a giant among the pigmies, or as an unsupported Maypole in the midst of a level population; but borne up by a splendid aristocracy, and a gradation of ranks shelving downwards to the basement of society. We doubt if the other monarchy could stand; or if France with its citizen king, amid a mighty and ever increasing swarm of smaller and smaller agrarians, can maintain its present economy for a single generation." Within ten months of the death of Dr. Chalmers, this sagacious doubt was verified by the throne of the citizen king being tumbled in the dust.

Dr. Chalmers then enters on his favorite condemnation of a legal relief for the poor, and warmly advocates popular education.

In the Appendix he shews the fallacy of Ricardo's Theory of Rent. "It is a signal error in a recent theory of rent, that the difference of quality in soils is the efficient cause of it. * *

In affirming that it is the existence of this inferior land which originates the rent, there is a total misapprehension of what may be termed the real Dynamics of the subject;" and at p. 330, he quotes with just approbation, from General Thompson, "The error of the Ricardo system of Political Economy on the subject of rent has been well characterised by Mr. T. Perronet Thompson as the fallacy of inversion. It confounds the effect with the cause. It is not because of the existence of inferior soils that the superior pay a rent, but it is because the superior pay a rent, that the inferior are taken into occupation!" This is perfectly just, and coincides with what we said under RENT.

Dr. Chalmers had as strong an abhorrence of the Funding system, as of a legal assessment for the poor. He conceived the extraordinary idea that by contracting public debts, the nation paid for the advance twice over. He maintained that the contraction of a loan raised the prices of commodities to an equal amount, which taxed the public within the year to an equal amount, and then besides that, they had to pay the annual interest on it. By this means he says the public paid for every loan twice over. In consequence of this, he maintained that all loans should be prohibited, and all expenditure raised by taxation within the year. Of this extraordinary paradox we have said something under FUNDS and TAXATION.

The supreme importance of a right moral to a right economical state of the country.

Connection between the extension of the Church and the extinction of pauperism.

Vol. XXI.

The sufficiency of a parochial system without a poor rate for the right management of the poor.

On the application of Statistics to moral and economical questions.

Dr. Chalmers also contributed some articles to the early numbers of the *North British Review*, which was founded by the Free Church party. They were in:—

No. I. *On the Corn Laws.*

No. II. *On the Political Economy of the Bible.*

No. IV. *On the Poor Laws of Scotland.*

No. VI. *On Savings Banks.*

No. XI. *On Stirling's Philosophy of Trade.*

No. XIII. *On the Political Economy of a Famine.*

CHALONER, WILLIAM, had an undoubted right to be heard on the subject he wrote upon, as he was one of the most extensive coiners and forgers of his day. He was the son of a Warwickshire weaver, and was apprenticed to a nailer in Birmingham, from whom he learnt to coin Birmingham groats. Being of a turbulent disposition he ran off from him and went to London, where he fell into company with a japanner, who taught him to gild. These arts he combined and turned to practical use, for he immediately began to coin false guineas and pistoles, which he got into circulation to a large extent. One of his accomplices was taken, and denounced him. This made him abscond for a short time, but the man being executed, he escaped. He then exercised his ingenuity in getting up false Jacobite plots, and two men were convicted and executed on his testimony.

Chaloner then, like a miniature Oates, rose high in public favor, and immediately recommenced his practices of coining, and to ward off suspicion he presented to Parliament proposals to prevent clipping and coining. Another of his accomplices was taken, and informed against him, but he was executed, and our hero escaped again.

He then obtained £1,000 from the Bank of England on a forged security, and not satisfied with such small game as guineas, he forged the £100 notes of the Bank. A person he employed to marble the paper informed against him, and he immediately hastened to give up all the notes and denounce all his accomplices. For this the Bank forbore prosecution.

He then had the audacity to charge Sir Isaac Newton, then Warden of the Mint, and his officers, with frauds and malversations. The House of Commons appointed a committee to investigate the matter, who of course dismissed the charge with ignominy.

He then took to forging malt-tickets, but his good luck deserted him. He was taken and tried. His previous forgeries were proved, he was convicted, and hanged at Tyburn, 22nd March, 1699.

The defect of the Mint, and how to coin money so that it cannot be counterfeited. London, 1690.

The defects of the present constitution of the Mint. London, 1693.

Proposals for passing an Act to prevent clipping and counterfeiting of money. London, 1695.

Reasons humbly offered against passing an Act to make good the deficiency of the clipped money. London, 1695.

CHAMBERLAIN, AYLING.

A treatise on the Commercial System and Stamp Laws of Great Britain. London, 1841.

CHAMBERLAIN, HUGH, M.D. This person, whose name is also spelt *Chamberlen* or *Chamberlyn*, was a member of a medical family, who were physicians to the Court for upwards of a century, from James I. to Anne. He was born in 1664, and educated at Trinity College, Cambridge, where he graduated in 1683, and took the degree of M.D. in 1690. He himself adopted the obstetric branch of the profession, and was physician to Charles II. The family were celebrated for the invention of a forceps, which saved the life of the infant in many cases where it had previously been sacrificed. This instrument, with some improvements, is still in high repute. He introduced its use into Paris, but being unfortunate in one case, he was obliged to leave. He went to Holland, where he was more fortunate, and realized a considerable fortune, besides selling the secret of his instrument to two Dutch physicians for a large sum. He then returned to England and obtained a very large practice.

That was a period when multitudes of projects for Banks were floating in men's minds. Amongst the busiest of these schemers was Chamberlain, who conceived a visionary scheme of turning all the land of the country into a paper currency. He selected Scotland as the scene of his experiment, and presented a plan to the Scotch Parliament in 1693, but it came to nothing. In 1694 the Bank of England was founded, and this gave great encouragement to Chamberlain. He

associated some members of the House of Commons with him, Asgill and Briscoe, and got a committee to report favorably upon it. Nothing however followed till 1696, when the government being in great straits for money, listened favorably to the project of the Land Bank. How miserably it failed is told under LAND BANK, aggravating the public distress it was meant to alleviate.

The next trace we have of Chamberlain is at Edinburgh, in 1700, when he again published a pamphlet to advance his scheme. In 1705, it was brought before the Scotch Parliament, under the patronage of a party called the *Squadron*, but it was rejected. He must then have been in poor circumstances, for the Parliament was obliged to pass a resolution to protect him from his creditors while laying his plan before them. His history after that is somewhat obscure. He attended Atterbury in the Tower, in 1723, and died June 17th, 1728, in Covent Garden.

Of all schemes of paper currency, Chamberlain's was the most insane. John Law's, which has always produced a catastrophe where it has been introduced, was merely to create a paper currency to the amount of the value of the land at twenty years' purchase. But Chamberlain argued that the land was good security to the amount of its annual revenue to any amount. Thus he argued, that if an estate of £150 a year were pledged for 150 years, it was a good security for £22,500 of paper currency. Now considering that land being worth 20 years' purchase at that time, the value of the perpetuity was only £3,000, it follows that the value of such land, pledged for 150 years, was $7\frac{1}{2}$ times that of the perpetuity! But according to this argument, a pledge of the land for a million of years was a good security for a paper credit of a million times the annual revenue. How such nonsense as this could ever be believed in by sane men, is almost incomprehensible, but yet many were taken in by it. (LAND BANK.)

Some useful reflections upon a pamphlet called A brief account of the intended Bank of England, whereunto is annexed a short description of Dr. Chamberlen's Bank. London, 1694.

Some account of the Land Bank. London, 1695.

A safe and easy method for supplying the want of coin, with some remarks upon the Bank of England, Dr. C.'s Bank. London, 1695.

A Bank Dialogue, or Dr. C.'s Land Bank explained by way of question and answer. London, 1695.

A brief narrative of the nature and advantages of the Land Bank, as proposed by Dr. Hugh Chamberlen. London, 1695.

A collection of some papers writ upon several occasions concerning clipt and counterfeit money, and trade, as far as it relates to the exportation of bullion. London, 1696.

The constitution of the office of Land Credit declared in a deed, by H. C. Senior. London, 1696.

Dr. C.'s petition and proposals for a land bank to increase trade, offered to the House of Commons. London, 1693.

A proposal by Dr. H. C., in Essex-street, for a Bank of secure current credit to be founded on land. London, 1695.

The several articles or parts of the proposal upon land credit rationally explained. London, 1695.

An essay upon the necessity of raising the value of twenty millions of pounds at least, in either bills, bonds, tickets, or tallies of credit, according to Dr. H.'s method. London, 1696.

A few proposals recommending the establishing a land credit in this kingdom. Edinburgh, 1700.

Papers relating to a Bank of Credit upon land security, proposed to the Parliament of Scotland, by Dr. H. C. Edinburgh, 1693.

Some few considerations supposed useful, concerning the vote of the House of Commons upon the Bill for hindering the exportation of gold and silver and the melting down of the coin of the realm. London, 1693.

CHAMBERLAYNE, EDWARD, LL.D.

Anglia notitia; or the present state of England, together with divers reflections upon the ancient state thereof. London, 1669. 38th Edition, 1755.

England's wants; or several proposals very advantageous for England. London, 1689.

CHAMBERS, ABRAHAM HENRY.

Thoughts on the resumption of cash payments by the banks, and on the Coin Bill as connected with the Bank. London, 1813.

Comments on some recent political discussions, with an exposure of the fallacy of the sinking fund. London, 1813.

CHAMBON.

Le commerce de l'Amerique. Paris, 1764.

CHAMBORANT, C. G., DE. Formerly an advocate before the Court of Cassation, and a member of the Conseil Général of the Charente.

De paupérisme ce qu'il était dans l'antiquité, ce qu'il est de nos jours; des remèdes qui lui étaient opposés, de ceux qu'il conviendrait de lui appliquer aujourd'hui, suivi d'une analyse de la législation ancienne et moderne sur ce sujet. Paris, 1842.

CHAMOUSSET, C. H. PIARON, DE. Born at Paris in 1717. He was employed in the Audit Office in Paris. He wrote several memoirs on pauperism, hospitals, &c., which were collected and published after his death by the Abbé Cotton des Houssayes, Librarian of the Sorbonne. Chamousset died in 1773.

Œuvres de Chamousset. Paris, 1783.

CHAPMAN, WILLIAM. Civil Engineer.

Observations on the effects that would be produced by the proposed Corn Laws on the agriculture, commerce, and population of the United Kingdom. London, 1815.

Observations on the prevention of a future scarcity of grain, by means contributive to the benefit of the landed, commercial, and manufacturing interest. London, 1803.

CHAPAT, LOUIS.

Coup-d'œil statistique sur les sociétés de secours mutuels de la ville de Lyon, &c. Lyon, 1854.

CHAPPEL, SAMUEL, Captain.

A diamond or rich jewel presented to the Commonwealth of England for enriching of the nation, being necessary for the use of all merchants and tradesmen, and advantageous to the poor. London, 1650.

CHAPPUS.

Histoire abrégée des révolutions du commerce, ou précis historique et raisonné des changements que le commerce a éprouvés à l'occasion des trans-migrations, des conquêtes, des nouvelles découvertes, et des révolutions politiques, depuis le commencement du monde jusqu'à nos jours. Paris, 1802.

CHAPTAL, JEAN ANTOINE. Count de Chanteloup, was born 4th June, 1756, at Nogaret. He studied at Mende, Montpellier, and Paris. He early devoted himself to practical chemistry and in 1781 the State of Languedoc created a chair of Chemistry for him. Inheriting a large fortune, he established large chemical works, and introduced several new products into French commerce. In 1793, he was summoned to Paris to superintend the manufacture of saltpetre. A large establishment was formed at Grenelle, which supplied 3,500 pounds a day. Without being a brilliant discoverer in Chemistry, he was very successful in its application to art. However, we must pass over his merits as a chemist. He was one of the first professors of the Polytechnic School. Napoleon made him minister of the Interior, which office he held for four years, and he devoted much of his time to advance the manufacturing interests. He established Chambers of Commerce in many places, the School of Arts, and the Conservatory. He was made a member of the conservative senate in 1805, and director general of commerce on Napoleon's return from Elba. On the restoration, he retired into private life, but was afterwards nominated a Peer of France. He died at Paris in July, 1832.

De l'industrie Française. Paris, 1819.

Quelques réflexions sur l'industrie en général, à l'occasion de l'exposition des produits de l'industrie Française en 1819. Paris, 1819.

CHARMAT.

Moyens de détruire la rareté actuelle du Numéraire. Paris, 1790.

CHARNOCK, JOHN HENRY.

A thorough draining, and its immediate results to the agricultural interest, as well as its probable effects on the general condition of the poor. London, 1844.

Suggestions for the more general extension of land drainage, by the judicious and equitable application of capital. London, 1843.

CHARPENTIER. The younger.

Discours sur la rareté des espèces à Paris, prononcé dans l'assemblée générale des représentants de la commune de Paris. Paris, 1790.

CHARPILLET, C.

Lettres Socialistes. Paris, 1851.

CHASSEPOL, FRANÇOIS.

Traité des finances et de la fausse monnaie des Romains. Paris, 1740.

This treatise was drawn up by desire of Colbert.

CHASTET, ETIENNE.

Etudes historiques sur l'influence de la charité durant les premiers siècles Chrétiens, et considérations sur son rôle dans les sociétés modernes. Paris, 1853.

CHASTELLUX, FR. JEAN DE. Marquis. Born at Paris in 1734. He took part in the American war of Independence, and died in 1788.

De la félicité publique, ou considérations sur le sort des hommes dans les différentes époques de l'histoire. Amsterdam, 1772.

CHATFIELD, FRANCIS.

Review of various bearings peculiar to Interests and Discounts. London, 1832.

Table explanatory of the effect of Discounts and Interests on profits and losses, as relative to each other. London, 1832.

CHATFIELD, ROBERT.

An historical review of the commercial, political, and moral state of Hindostan. London, 1808.

CHAUDOIR, STANISLAS DE. Baron.

Aperçu sur les monnaies Russes et sur les monnaies étrangères, qui ont eu cours en Russie depuis les temps les plus reculés jusqu'à nos jours. St. Petersburg, 1836-37.

Recueil de monnaies de la Chine, du Japon, de la Corée, d'Annam, et de Java, au nombre de plus de mille, précédé d'une introduction historique sur ces monnaies. St. Petersburg, 1842.

CHAUBEAU, ADOLPHE. Professeur de droit administratif.

Des établissements de charité publics et privés en France, et dans les pays étrangers, sous le point de vue administratif. Paris, 1857.

CHEQUE. A cheque is an order on a Banker to pay a definite sum of money to a certain person on demand.

It is one of the varieties of one of the two great divisions of instruments of credit, **ORDERS** to pay. It is in form a Bill of Exchange payable on demand.

When a customer places money at his banker's the property in the money passes to the banker, and in lieu or exchange for it he creates a credit in his customer's favor in his books. That **CREDIT** is called a **DEPOSIT**.

So also when a Banker buys a Bill of Exchange from a customer, he does it by creating a credit in his favor in his books, and that **CREDIT** so created is called a **DEPOSIT**.

Thus all banking advances are made in the first instance by **CREATING LIABILITIES**, or **CREDITS**, which are called **DEPOSITS**.

These deposits are what were called *Moneta di Banco*, or Bank Money, in the great foreign Banks of Deposit, at Venice, Amsterdam, Hamburg, &c., and payments were made by transferring them from one account to another. They were, however, payable in specie on demand at the will of the parties.

The essence of banking consists in creating these credits. When a bank receives nothing

but bullion and money, and creates only an equal amount of credit to what it receives as money, it is called a Bank of Deposit. Such a bank of course manifestly creates no increase of the currency.

But when a bank buys, or discounts, bills of exchange the case is different. Because as a bill of exchange is credit, and a banker buys a bill of exchange by creating credit, it is manifest that that is an augmentation of the Currency.

It used to be the custom in London for banks to buy bills of exchange with their own promissory notes payable to bearer on demand, and hence they were called *Banks of Issue*. About 1772 they changed the form of creating credit, they gave their customers credit in their books, they created *DEPOSITS*, and gave their customers authority to draw orders upon them payable on demand.

Now it is clear that the effect on the currency was just the same, whichever form of creating credit they adopted. And it is clear that banks which discount bills by creating deposits, are substantially Banks of Issue.

Cheques, or Drafts on Bankers, were certainly used by the Romans. The Latin name of a cheque is *attributio* or *prescriptio*. Whether they were only payable to a single person named, or whether they were transferable from hand to hand, and payable to bearer, we have never seen discussed.

Their use in modern times seems to have been revived by the Dutch, sometime in the 17th century. Malynes, who wrote in the middle of the 17th century, says that merchants who wished to transfer a part of their credit at their banker's to another customer, used to go at the end of each day and tell him what transfers were to be made. A great improvement on this plan was for the merchant to give a draft, or cheque, on his banker; and John Law, who is certainly an authority on these points, says that this was the custom of the Dutch in the early part of the 18th century, and strongly advocates their introduction into England.

So late as the renewal of the Bank Charter in 1742, the English bankers do not seem to have used cheques, but only bank notes. And the legal definitions of banking as used in the various Bank Charter Acts, only describe the issue of notes. And at that time it was fully understood that the essence of banking consisted in the issue of notes. Thus *The General Evening Post*, February 10th, 1737, says, "As the time approaches when the original fund of the Bank will be redeemable by Parliament, viz: upon one year's notice after the 1st August, 1742 (which is in less than seven years), and consequently their privilege of Banking, or issuing out *Cash Notes*, exclusively of all other corporations, will cease."

So late as 1759 certainly, London bankers continued to issue notes. But within the next ten years or so, they discontinued the issue of notes, and adopted the method of creating *DEPOSITS* or *Credits* in their books, and giving their customers cheque books. This change in the manner of doing business seems probably extremely unimportant, and yet it is of very great historical interest, as it was entirely owing to this little change that the monopoly of the Bank of England was undermined, and the Joint Stock Banks of

London were able to be founded. The words creating a monopoly only contemplated banking in the form of issuing notes, and made no provision against it in the form of deposits and cheques. (*BANKING IN ENGLAND*.)

The slightest reflection will shew that there is no real difference in the *nature* of Banking, whether it is done by means of bank notes, or deposits and cheques. It is only in the form. Banking equally creates credit now to what it did formerly.

This shews the enormous error of those who think that the private bankers and the Joint Stock Banks of London are only Banks of Deposit, and still more of those who think the Currency Principle is carried out by the Bank Act of 1844, or that it is possible to do so in any Bank of Discount. (*BANK; BANK NOTE; CREDIT; CURRENCY; CURRENCY PRINCIPLE; DEPOSIT; DISCOUNT*.)

CHERBULIEZ, ANTOINE ELISEE, born in 1797, at Geneva, where he practised as an advocate. He was then appointed a magistrate, and professor of law in succession to Rossi in 1833. In 1835 he was appointed Professor in Political Economy. He was a member of the different legislatures of the canton, from 1831 to 1846. After the revolution of 1848 he removed to Paris.

Riche ou pauvre, ou exposition succinte des causes et des effets de la distribution des richesses. Genève, 1840.

Le Socialisme c'est la barbarie. Paris, 1848.

Simple notions de l'ordre social à l'usage de tout le monde. Paris, 1849.

Le potage à la tortue, ou entretiens populaires sur les questions sociales. Paris, 1849.

Etudes sur les causes de la misère tant morale que physique, et sur les moyens d'y porter remède. Paris, 1852.

CHEROT, A.

Etude sur la culture, le commerce, et les industries du lin, et du chauxvure en France. Nantes, 1846.

CHERUBINI, FRANCESCO.

Notizie storiche e statistiche intorno ad Ostiglia. Milano, 1826.

CHERUEL.

De l'administration de Louis XIV. Paris, 1849.

CHETHAM, HUMPHREY.

A new defence of tithes. London, 1832.

CHEVALIER, MICHEL. The most distinguished economist on the Continent, was born at Limoges, 13th January, 1806. His father was engaged in commerce. At 18 he entered the *Ecole Polytechnique*, and afterwards the School of Mines, and was attached to the department of the Nord. Like many other young men of brilliant talent and ardent imagination, he joined the followers of St. Simon, and in September, 1830, he addressed two letters to their paper, *Le Globe*, of such extraordinary power, that he was immediately made editor of it, which position he held till the schism between Bazard and Enfantin.

M. Chevalier adhered to *Enfantin*, who was called the *père suprême*. In July, 1832, the government deeming the sect dangerous, instituted a prosecution against them, and the *père suprême* was sentenced to two years' imprisonment, and M. Chevalier, one of his *cardinaux*, to twelve months. He was, however, released at the end of six months, and reflection made him change his sentiments, and soon after his liberation he formally disavowed the obnoxious doctrines.

In 1833, M. Thiers sent him on a mission to the United States, to report upon their internal communications by canal and railway. He addressed a series of very remarkable letters to the *Journal des Débats*, describing his travels, which were afterwards republished in two volumes. In 1836, he was commissioned to visit London during the commercial crisis.

In 1838, he was nominated chevalier of the Legion of Honor, a *conseiller d'état*, a member of the *conseil supérieur de commerce*, and in 1840, was appointed successor to Rossi in the chair of Political Economy in the Collège de France. In 1845-46 he sat a short time in the Chamber of Deputies for Aveyron. He ardently espoused Free Trade doctrines, and accompanied Bastiat in his free trade campaign, in the autumn of 1847, through the departments, in the attempt to form a league on the model of the English Anti-Corn-Law League. The attempt, however, did not succeed. (BASTIAT.)

The revolution of 1848 threw him out of all his offices and employments, especially that of his Professorship at the Collège de France. He then vigorously combated the socialist doctrines. He had been for sometime the president of the *Conseil général* of the Herault, which under his auspices has distinguished itself for the advocacy of Free Trade principles. Being an anti-republican in principle, he declared in favor of the *coup d'état* of the 2nd December, 1851. In September, 1852, he was restored to his chair of Political Economy in the Collège de France.

In 1851, he was elected as the successor of M. Villermé in the Academy of Moral and Political Sciences, section Political Economy. He has recently been created a Senator by Napoleon III. and has taken a warm part in negotiating the recent treaty of commerce with England, as a step in the direction of Free Trade.

Lettres sur l'Amérique du Nord, avec une carte des Etats Unis d'Amérique. Paris, 1836.

Les intérêts matériels en France; travaux publics, routes, canaux, chemins de fer. Paris, 1839.

Histoire et description des voies de communication aux Etats-Unis, et des travaux qui en dépendent. Paris, 1840.

Lettres sur l'inauguration du chemin de fer de Strasbourg à Bâle. Paris, 1841.

Cours d'économie politique fait au Collège de France. Paris, 1842-50. 2nd Edit. 1855.

This was the course of Political Economy delivered by M. Chevalier in his capacity of Professor during twelve seasons. At the beginning of each of these he gave an opening address, and these discourses are placed at the beginning of the first volume, of the second edition. The first address in 1840, is on the greatness and the weakness of modern industry. The second in 1841, discusses the increasing importance of Political Economy. The third in 1842, is upon the necessity of society

increasing its productive power, especially by improving its means of transport. The fourth in 1843, is on industrial credit. The fifth in 1844, is on public credit. The sixth in 1845, is on the necessity of professional instruction. The seventh in 1846, is on the question of population. The eighth in 1847, is on the freedom of labor. The ninth in 1848, on the opposition between Political Economy and Socialism. The tenth in 1849, is on the agreement between Political Economy and morality. The eleventh in 1850, is on the desire of well being. The twelfth in 1851, is on progress.

The first lecture examines the relations between the progress of industry and liberty. The second shows that the elevation of all classes is intimately connected with the development of productive power, and that this has vastly increased in modern times.

This lecture is of importance. M. Chevalier shows that there are several sorts of productive labor, and he shows the comparative progress that has been made in them. He says, in four centuries the increase of the production of iron has increased in the ratio of 25 or 30 to 1. That of flour in that of 144 to 1, since the days of Homer. In 70 years the increase of the cotton manufacture has been in the ratio of 320 to 1, and that of linen as 240 to 1. And as the last instance of productive labor he cites that of *transport*.

Thus we see that M. Chevalier classes transport as productive labor, and, therefore, he who causes anything to be transported from one place to another where it is wanted, is a *productive laborer*. Thus Adam Smith classes retail shopkeepers as productive laborers, and consequently the transport of merchandise from the wholesale warehouse to the retail dealer's shop where it is sold to the customer, is one species of *Production*.

Now it is just on this point that the modern doctrines of credit are so much at fault. Many writers laugh at the notion that credit conduces to production. But by *production* they evidently mean increase of *quantity*. Now nobody ever said that credit could make one ear of corn into two. They allow that money is productive capital. But money cannot make one ear of corn into two. The species of production to which money is subservient, is that of *exchange* or *transport*. The industry of exchange and transport is productive labor, and whatever sets that in motion is productive capital—just as money is. When we say that credit is productive capital, it is to this species of production that we allude.

When some writers say that credit only transfers capital from one person to another, we say that is all that money does, and, therefore, those who allow money to be productive capital, must, by their own arguments, allow that credit is the same, which performs the same functions. (CREDIT; PRODUCTION.)

The third lecture examines objections that have been made against the doctrine, that the interests of society demand the increase of production. The fourth and fifth lectures treat of machinery and its utility, as well as the objections that have been made to it. The sixth treats of the temporary injury done to some laborers by the introduction of machinery. The four next treat of the means of communication. And the three last on the charges and fares on canals and

railways. An appendix treats of the changes made in the railway service.

The first eight lectures of the second volume treat of public works, and the interference of government in their construction and the guarantee of a minimum rate of interest. The ten following ones then consider the question of the application of the army in different countries to productive employment. The nineteenth discusses the influence of government over education. The three next examine whether it is possible to apply the principles of organisation to industry. The remaining lectures treat of cheapness and its advantages.

VOL. III. *La Monnaie*. This work investigates the nature of money—The prices of things—The coinage—The sources whence the supplies of the precious metals are derived, and the quantity produced—The causes which produce an export or import of bullion, and the probability of an approaching fall in the value of the precious metals. This subject M. Chevalier has treated of more at length in a subsequent volume.

We are happy to say that in this volume M. Chevalier has given his opinion of the definition and extent of the Currency, which exactly coincides with our own. (CURRENCY.)

Lettre à M. Molé sur les fortifications de Paris. Paris, 1840.

Essai de politique industrielle, souvenir de voyage: France, république d'Andorre, Belgique, Allemagne. Paris, 1843.

L'Isthme de Panama. Paris, 1844.

De l'industrie manufacturière en France.

Lettres sur l'organisation du travail, ou études sur les principales causes de la misère, et sur les moyens proposés pour y remédier. Paris, 1848.

La liberté aux Etats-Unis. Paris, 1849.

Questions des travailleurs; l'amélioration du sort des ouvriers, les salaires, l'organisation du travail. Paris, 1848.

Examen du système commercial connu sous le nom de système protecteur. Paris, 1851.

De la baisse probable de l'or, des conséquences commerciales et sociales qu'elle peut avoir, et des mesures qu'elle provoque.

This volume examines at greater length, the subject discussed in the last division of the author's book *La Monnaie*. The first two sections contain a résumé of the general principles of money. The third section treats of the production of gold, and the increasing quantity of it coined in recent years. He then shows the greatly diminished coinage of silver during the same period, and argues from thence, justly, that gold has fallen in value compared to silver. The enormous increase of the exports of silver to the East is then noticed. He then says that from the enormous quantity of gold poured in, a more rapid diminution of its value might have been expected, but that the coinage of France had, in fact, acted like a parachute and had prevented its being very visible, until gold had replaced silver. He then notices the various sources of production of gold throughout the world, and says that there seems every likelihood of their continuing to pour forth such quantities of it, that a serious diminution in value is inevitable unless it can find a market proportional to its increased quantity. He then inquires what additional markets may be expected, and if they are proportional to the increased supplies.

Among these he enumerates some countries whose currency consists of paper, such as the United States, Austria and Turkey; the increasing demand for articles of luxury, &c. M. Chevalier considers that all the new markets that can be opened will not be sufficient to take off the increased supplies, and that as a necessary consequence a diminution of its value must ensue. He then considers the effect of the monetary laws of France upon the phenomena of the value of gold, under its different governments. In the sixth section the consequences of a fall in the value of gold are examined; the sufferings and difficulties which will accompany the transition; and the profits which will be made by certain classes of persons. The seventh section considers what means may be taken to obviate the ill effects of the fall. Several valuable documents relating to the coinage of France are appended.

CHEVRET, JEAN.

Principes de sociabilité, ou nouvel exposé des droits et des devoirs de l'homme et du citoyen, suivis d'observations relatives aux propriétés à la liberté de commerce. Paris, 1793.

CHIAVACCI, VLADIMIRO.

Dock Commerciale di Genova. Considerazioni sopra i grandi vantaggi che il commercio nazionale ritrarrrebbe dalla sua istituzione, precedute da alcuni cenni intorno i dock commerciali d'Inghilterra. Torino, 1851.

CHICKERING, JESSE.

A statistical view of the population of Massachusetts from 1765 to 1840. Boston, U.S., 1846.

CHIDLEY, SAMUEL.

A remonstrance to the creditors of the Commonwealth of England, concerning the publique debts of the nation. London, 1654.

CHIFFLETIUS, CLAUDIUS.

De antiquo numismate liber. 1656.

De antiquo nummo et præcipue Romano. Hamburg, 1678-79.

CHIFFLETUS, HENRICUS THOMAS.

Dissertatio de Orthoniibus æreis. Antwerpæ, 1656.

CHILD, JOSIAH, SIR, a very great potentate indeed in his day—and who has not read of his deeds in Macaulay—was born in 1630, the second son of Richard Child, a London merchant. He followed the same profession, and attained great wealth and influence, and became chairman of the East India Company, in which position he was a rival to, if not a greater power than, the king himself. He is said to have written several anonymous treatises in favor of the East India Trade. The only one, however, which he published with his own name, was the one mentioned below, which has been often quoted and referred to, and is therefore entitled to our notice, as one of the earliest in commercial literature. He was made a baronet in 1678, and died in 1699. He was married three times, and his children by each of his wives married into the highest families in the

kingdom. His third wife is said to have been allied to eleven dukes and duchesses, and about fifty great families were thrown into mourning by her death—pretty well for a London merchant.

A new discourse of Trade. London, 1690.

This is the second and enlarged edition of a little work named *Brief observations concerning Trade and the interest of money*, originally published in 1668. It was remarkable for maintaining the extraordinary doctrine, that it was the lowness of the rate of interest which caused the wealth of the nation, and he brought forward as an example the Dutch, whose wealth he said was entirely owing to the lowness of the rate of interest. His work was immediately answered by another called, "The interest of money mistaken, or a treatise proving that the abatement of interest is the effect and not the cause of the riches of a nation." In the new edition, however, of his work, with a new title, Sir Josiah Child most strenuously reaffirms his former doctrine, and replies to his opponents. He well shews the absurdity of diminishing the value of the coin, or raising its denomination, tricks which had been repeatedly tried in Spain and Portugal. He shews that merchants simply raised the price of their goods, in proportion to the depreciation of the coin, as they observed what the intrinsic value of the money was, and not the name it is called by.

This treatise, though it contains error, is nevertheless in many respects very excellent. In the first chapter he ascribes the greatness and prosperity of Holland to fifteen causes. The 1st is their taking great merchants into their state councils; 2ndly, the equal division of property at the death of the parent; 3rdly, their good faith in trade; 4thly, their encouragement of inventors, and introducers of foreign improvements, who always receive a public reward; 5thly, the cheapness of their navigation; 6thly, their frugal mode of life; 7thly, the excellent education they gave their children, male and female, especially in arithmetic; 8thly, the lowness of their customs and excise; 9thly, their careful management and employment of their poor; 10thly, their use of banks; 11thly, their religious toleration; 12thly, the cheapness and speed of their law proceedings; 13thly, their facility in transferring *bills of debt*, the advantage of which, he says, none can know who have not seen it in use; 14thly, the public registers of all real property sold or mortgaged; 15thly, the lowness of the interest of money, which in peace did not exceed 3 per cent, and in the then war, 4 per cent.

In the second chapter he examines the state of pauperism, and points out that the fundamental error in it was leaving it to the care of every Parish to maintain its own poor only, whence the shifting and bandying about of the poor to their last place of abode. This is still one of the crying evils of the English poor-law, and one which the most earnest poor-law reformers have most tried to get rid of, hitherto in vain. (CHADWICK.) He proposed that the whole district within the Bills of Mortality should be united for poor-law purposes, and put under the management of a commission.

Sir Josiah Child then considers the case of merchant companies, and decides that they are injurious to trade, and that a free trade has

always been more prosperous than one confined to a company. The only exception, perhaps, being in such a case as the East Indies, which were barbarous countries, where there was a necessity to maintain forces and forts. In the fourth chapter he approves of the policy of the Navigation Act.

In the fifth chapter he earnestly recommends the advantages of transferring *Bills of Debt*, as Malynes had done before, and he gives such a bill as he would recommend to be passed for the purpose of introducing them. In this chapter he seems quite to negative the idea that is not uncommon, that Cardinal Richelieu invented the indorsement on Bills of Exchange, for he says, p. 129, "Even in our own (country), where we have for many ages had the experience of indorsement on Bills of Exchange," which would be a very incorrect mode of speaking, if Richelieu had only invented it thirty years before.

He strongly advocates the establishment of a Court Merchant, to decide all mercantile disputes, and the granting the utmost facility for naturalization. He shows the impossibility of ascertaining the balance of trade as it was then computed. But though he shows the absurdity of the common opinion about the balance of trade, he did not hit upon the true statement of it.

We thus see that Sir Josiah Child had the true fundamental notion of a *currency*, that it is the representative of debt, and his plan was to make these as transferable as possible. He never once proposes the crazy idea which became so prevalent a few years afterwards, and has continued so to the present day, of turning goods or land into money. (CIESZKOWSKI; LAW.)

CHITTI.

Des crises financières et de la réforme du système monétaire. Bruxelles, 1839.

CHOKIER, JOANNES A.

Tractatus de re nummariâ prisci ævi. Leodii, 1619.

CHOMEL. Citoyen.

Sur les assignats; correspondance entre les citoyens Chamba et Chomel. Paris, 1793.

CHOMEL, NOEL.

Dictionnaire économique, contenant divers moyens d'augmenter son bien et conserver sa santé. Paris, 1718.

Dictionnaire économique contenant l'art de faire valoir les terres, &c. Paris, 1767.

CHONSKI, HENRI DE, son of the following, was born in 1809, at Kremenetz, in Poland, and became a naturalized Frenchman.

Des institutions de crédit foncier et agricole dans les divers états de l'Europe. Paris, 1851.

CHONSKI, MICHEL DE, born in 1780, at Wizany, in Poland.

O systemie podatkowania. Kremenetz, 1817.

Zasady gospodarstwa norodow. Kremenetz, 1821.

CHOSE IN ACTION. A *chose in action*, or, as it is sometimes called, a *chose in suspense*, is a right which a person has to something which is neither in his actual, or constructive possession, and which he cannot obtain possession of, unless by the voluntary cession of the possessor, without an action.

The subject of *chooses in action*, which involves considerable intricacy at law, will demand our special attention, because they contain the great master-subtlety of Political Economy, and a clear apprehension of their nature and several kinds will throw a blaze of light over the whole science, and enable us to pronounce a judgment upon the most disputed and obscure points in the subject.

In ancient times chattels personal consisted entirely of movable goods, visible and tangible in their nature, which were in the possession either of the owner, or of some person on his behalf, which could be identified and taken possession of. In fact, those in which the *property*, or ownership, was specific and certain, and which even if not in the possession of their owner, might be identified.

But though in early times such a thing as an incorporeal chattel personal was not recognized, there existed in many cases a *right of action*, either to recover pecuniary damages for a wrong, or for the nonperformance of a contract, or for the recovery of money due. Such a right was called a *chose in action*.

Now though this *chose in action* was a valuable right, for certain reasons which we need not enlarge upon, it was deprived by the Common Law of one of the usual incidents of personal property, it was not transferable.

Now there is a great and subtle distinction, and one of the most fundamental importance in Political Economy, between a *chose in possession* and *chose in action*.

When a man entrusts any personal chattel, such as a horse, a book, a watch, or a carriage, to the custody of another person, the *property* in that chattel remains in him, although he parts with the *possession* of it for a certain time, and if he sees his chattel in another person's hands he can reclaim the specific thing. Or if he deposits a particular bag of money, which is marked and can be identified, in the custody of some one else, there is but *one* property, although the property and the possession are separated. And he may retake the very horse, or the very book, or the very watch, or the very carriage, or the very bag of money.

But in the case of a simple debt it is quite different. A debt is simply a *right* to demand money, and is not a claim or right to any specific bag of money. And although a man owes me money, that confers no right upon me to put my hand into his purse and take it out, or to seize his goods and chattels of my own authority and sell them.

If I deposit £100 with my banker, that does not give me any right to take away 100 sovereigns or bank notes I may see lying on his counter.

On the contrary, when a debt is incurred it is a mutual transfer of properties. If one man lend, as it is somewhat erroneously called, £100 to another, the absolute property in the money passes to the borrower, and what passes to the lender is a *right*, or property, to demand back an equal

quantity of money at some future time, which, unless prevented by law, may be sold or transferred to any one else.

Hence arises this doctrine which, subtle as it may seem, is one of the great fundamental doctrines of Political Economy, that a *Debt* is itself a separate, independent, and transferable valuable thing, which may be sold and transferred like any article of merchandize, and is as much independent exchangeable property, as any other commodity whatever.

The distinction is extremely apparent. When a man deposits money with his banker, the banker becomes the *debtor*, and not the *bailee*, to his customer. When a man deposits goods in a warehouse, the warehouseman becomes a *bailee*, and not a *debtor*, to his customer. The property in the money passes to the banker, and he may use it as he pleases for his own benefit; on the contrary, no property whatever passes to the warehouseman, and he may not use the goods as he pleases for his own benefit.

These debts then being independent property, formed by far the largest class of what were originally called *chooses in action*, but were not allowed to be transferred by the Common Law, because such a power was supposed to afford too great a temptation to litigation.

Merchants, however, soon saw the amazing advantages and facilities it would give to commerce to be able to transfer debts like other commodities, and this they did by means of Bills of Exchange and Promissory Notes, which we may call by the general name of *INSTRUMENTS OF CREDIT*; and this power of transfer was at length recognized by the Courts of Common Law, and by Statute.

Now from the preceding considerations arises the doctrine which is perfectly well known to every lawyer in the world, which was perfectly well known and acknowledged by merchants, before the doctrine that Labor is the cause of Value gained its pernicious influence over Political Economy, and which even yet struggles through the contradictory views of modern Economists, that *CREDIT*, or *DEBTS*, are separate, exchangeable property over and above commodities and money, and are to be reckoned separately in a catalogue of national property.

Thus Mr. Justice Byles enumerates the Land, Credit, and the Funds as separate property, the correctness of which no one competent to judge will dispute.

Thus is shewn the fundamental distinction, which is one of the most important in Political Economy, between a Bill of Lading or a Dock Warrant, and a Bill of Exchange. Bills of Lading and Dock Warrants are always titles to certain specific goods which are in the possession of some bailee, whose duty it is to deliver them to the owner of the Bill of Lading or the Dock Warrant. And the property in these goods may be transferred a hundred times while they remain in the possession of the bailee.

From this it manifestly appears that there cannot be any more Bills of Lading or Dock Warrants than there is property, and hence these paper documents *REPRESENT*, and are one with the Goods.

But when a merchant buys goods with a Bill of Exchange, all connection between the bill and

the goods is severed. The property in the goods passes to the merchant, and the property in the Bill passes to his creditor, and the goods and the Bill may each be sold and transferred separately, and form two distinct and separate properties.

The owner of the Bill, which is a *chose in action*, probably sells it to his banker, whose business especially consists in buying these *chooses in action*. And he does this by creating another *chose in action*, either in the form of a Bank Note, or by a credit created in his books, called a Deposit, which the merchant can put into circulation, and which may be transferred any number of times.

But it is manifest that the Paper, the Bill, or the Note, is merely the evidence of the right, and is not the right, or the *chose in action* itself, which exists in the person quite independently of any paper document. Hence a debt, or a credit, in any other form whatever, such as a book credit, is of exactly the same nature as a Bill or Note, only it is not in a form so well adapted for circulation, and it is to be treated and classed along with them.

Now the various forms of Credit in this country greatly exceed, at least tenfold probably, all the cash in the country. All estimates of the credit and the cash in the country are necessarily vague, but it is probably not unsafe to say that the credit in this country is not less than £600,000,000; whereas the cash does not probably exceed £70,000,000. And there is no connection between them, there is none of the cash set apart and appropriated to the payment of any of this credit, and, in fact, it is expressly forbidden from being so.

Hence instruments of credit of all sorts do not REPRESENT money at all, in the same sense that Bills of Lading represent goods, but are independent property.

The distinction thus explained between Bills of Lading and Bills of Exchange, may perhaps seem somewhat subtle. It is nevertheless one of the most transcendent importance in human affairs. It lies at the root of the whole theory of the currency (CURRENCY), and it is from a confusion on this very point, that those false theories of currency have proceeded, which have brought such dire calamities on the world. (LAW.)

This is the basis of the theory of credit, which, however, involves several other subtleties, which we cannot enlarge upon here, but are fully developed under CREDIT.

It is also upon the doctrine that Credit is itself separate, independent, and exchangeable property, that the indubitable truth is based, that CREDIT is CAPITAL. Mr. Mill acknowledges that any thing that may be exchanged may be capital. It is only necessary to shew, therefore, that credit may be exchanged, and the doctrine that Credit is Capital follows as a matter of course.

Debts, therefore, were early recognized as personal property of an incorporeal nature, and as they were called *chooses in action*, this name was extended to immense quantities of property of the same nature which have grown up in modern times.

But, nevertheless, there are distinctions of considerable subtlety in the nature of different kinds of *chooses in action* themselves. And this is one of the points on which the legal classification of property is not that which is most suitable for

Political Economy, as we have shewn in the PRELIMINARY DISCOURSE. For all incorporeal property is not called a *chose in action*, nor are all *chooses in action* incorporeal property. Some *chooses in action* are naked, incorporeal, and intangible rights, but others are associated with material and tangible things.

In modern times an immense mass of property of an incorporeal nature has sprung up which was unknown to the common law. Thus the funds, shares in commercial enterprises of all sorts, banks, railways, canals, gas and water companies, insurances, personal annuities of all sorts, are all classed as *chooses in action*. This is all personal property of an incorporeal nature, amounting in value to several thousands of millions in this country. So lottery tickets are *chooses in action*. But we do not know of any instance in which a copyright, or a patent, or the goodwill of a business, has been classed as a *chose in action*. Now all these are incorporeal and separate property.

But there are other *chooses in action* which are not independent and separate incorporeal property, severed from a tangible and visible object.

The first of these are *Mortgage deeds*, which in modern times are classed as *chooses in action*.

In point of strict law a mortgage deed is an absolute conveyance of the property, in land, for instance, from the mortgagor to the mortgagee, who becomes the owner of the property, with the condition that he shall reconvey it on the repayment of the money borrowed at some fixed time. Thus, in point of law, a mortgage on land is not an incorporeal right, but a title to the actual land; and the deed is not a separate property from the land, but goes with it.

Equity, however, took a different view of the matter. It regarded the mortgage as in substance nothing more than as a security for the money borrowed, and regards the mortgagor as in reality the owner of the property, subject to the repayment of the debt. Considered, therefore, as a mere security for money, the mortgage deed is classed as a *chose in action*. But there is this very important distinction between it and an instrument of credit. The mortgage deed and the land go together, they cannot circulate separately and independently. They are, therefore, only one property. And this *chose in action* is material and tangible. Whereas, as we have often said, an instrument of credit, and the money it may ultimately be paid with, if paid with money at all, circulate separately, and are separate properties.

The very same thing is true of Bills of Lading and Dock Warrants deposited as securities for advances, the property in the goods they represent goes together with them, and they cannot be separated.

Another kind of a *chose in action* which is associated with something material and tangible, is a legacy, and it is called an equitable *chose in action* because a legatee can only recover it in a Court of Equity.

The equitable right to the legacy is in the legatee, but the legal possession is in the executor, though not the legal property, because he cannot use it as he pleases. The right to the legacy and the legacy are therefore not two, but only one property, the property being merely separated from the legal possession.

Thus we see that the class of property known as *choses in action* in law, is not a suitable one for the science of Political Economy, and may lead to much error. The fundamental principle of Political Economy is to ascertain what is *separate* property, and the criterion of the subject is that which we have given under *CREDIT*, viz.—

That which can be separately exchanged, is separate property.

Thus credit in all its forms, money, stock, shares, &c., can all be exchanged separately, they are therefore all separate property, and they do not represent property.

A mortgage deed, or any title to land, bills of lading, dock warrants and goods, cannot be exchanged separately, therefore they are *not* separate property, but they represent property.

This at once shews the error which we believe Dr. Chalmers originated, and which has become rather prevalent among Economists, that the funds are analogous to a mortgage on the property of the country. For a refutation of this error see *CAPITAL; CAPPS; FUNDS*.

The considerations in this article may also be useful to call the attention of economists to the existence of incorporeal property, or incorporeal chattels, the almost total neglect and omission of which from most works on Political Economy is one of their most inexplicable and striking defects. For not only does its admission give an immense augmentation to the field of the science, but it also greatly modifies many of its laws and principles which are erroneously supposed to be general. (*PROPERTY*.)

CHRISTIAN, GERARD JOSEPH, born in 1776, at Verveirs. Director of the *Conservatoire des Arts et Métiers*. Died in 1833.

Des impositions et de leur influence sur l'industrie agricole, manufacturière et commerciale, et sur le prospérité publique. Paris, 1814.

CHRISTIE, WILLIAM DOUGAL.

A plea for a perpetual copyright, in a letter to Lord Montague. London, 1840.

CHRISTOPHORO D'AVADOS, F. A. DE.

Essai sur le commerce et les intérêts de l'Espagne et ses colonies. Paris, 1819.

CHURCHILL, J. F.

Des crises d'argent et du crédit républicain. Paris, 1848.

CIBRARIO, LUIGI, an eminent Sardinian writer and statesman, was born at Turin on the 23rd February, 1802. In 1824, he took his degree in civil and canon law, and then devoted himself to historical researches, especially about his native country, and its sovereigns. He has also published several works in general literature.

In 1830, he was elected a member of the Turin Academy of Sciences. He was an intimate friend and adviser of Charles Albert, who sent him on some diplomatic missions in 1832-33, and he was sent as Royal Commissioner to Venice in 1848. After the fatal battle of Novara he resigned this office, and he followed his unfortunate sovereign to Portugal, to endeavour to induce him to return to Turin, but did not succeed. He has filled several

important offices. In 1830 he was sent as plenipotentiary to France, to conclude a treaty of commerce, and a convention on literary property. He was for some time Minister for Foreign Affairs in Count Cavour's cabinet. His works relating to political economy are:—

Delle finanze della Monarchia di Savoia discorsi tre. Torino, 1841.

Della Economia Politica del medio evo. Torino, 1839.

This valuable work is divided into three books, the first of which treats of the political condition of the middle ages; the second, of the moral condition; and the third only, of what is usually designated as political economy by modern economists.

The third book contains eight chapters. The first treats of the effect of the political condition on industry and agriculture. The second is on the police regulations regarding the public health, manufactories, markets, the public safety, games, and prostitutes. The third chapter explains the various tenures of land. The fourth is on population, and a table is appended, exhibiting the ancient and the modern population of sixty towns and villages in the kingdom. The fifth chapter treats of the public treasury and taxation. The sixth is on the monetary system, and gives details of some of the principal coins formerly in use. The seventh is on the relation between ancient and modern money, according to their value in subsistence; several valuable tables are appended, showing the different species of money, and their weights in bullion, and their value in subsistence. The eighth and last chapter treats of maritime law, navigation, commerce, the arts, the theory of credit, interest, and exchange.

In this chapter Cibrario fully bears out what we have said under *BILL OF EXCHANGE*, § 14, that Bills of Exchange were invented by the Italians and not by the Jews. He says p. 527, edit. 1839.—“The principal merit of the Italian towns, besides having renewed in the middle ages the power and the commerce of Carthage and Tyre, was having discovered or renewed the theory of credit, and the incredibly rapid circulation of money by means of Bills of Exchange. Towards the end of the 12th century, as one may gather from the statutes of Susa, there were established in various cities of Italy, banks of loan and exchange, called *casane*. This business was carried on principally by the people of Tuscany, Asti, and Chieri, who carried on the not always innocent business not only of circulating and exchanging money, but also of lending upon pledges. In 1226, we know from the chronicles of Asti, that bankers of that city were introduced into France, where the same business was already carried on by the merchants of Cahors. Thenceforward Italian money lenders greatly multiplied, first being confounded with the Caorsini, then distinguished by the name of Lombards, first caressed, then persecuted by princes, then hunted to death, and always hated by the people. Some of these bankers went to the Courts of England and France, the richest to that of the Pope, and the firms of the Bardi, the Peruzzi, and the Frescobaldi of Florence, the Balardi of Pisa, the Salimbeni of Siena, had nothing to envy in the modern Rothschilds. He says that the firm of Caluccio Balardi had a bank at Paris in the beginning of

the 14th century, and Giovanni Vanno had a bank at Dover and Canterbury at the same time.

He also says, as is stated in *BILL OF EXCHANGE*, that they were greatly used in transmitting the papal revenues.—“The Italian bankers were the first to discover the true laws of the commerce of money, and the world is, in fact, indebted to them for the theory of credit, and bills of exchange. I know, certainly, that some say that the Jews invented Bills of Exchange, but even if that could be proved, the merit of having adopted and extended their use undoubtedly belongs to the Tuscan bankers, who were charged with the duty of collecting the papal revenues in various parts of the Catholic world, and availed themselves of this means of consigning the funds collected, when the papal court had pressing need of money.” Cibrario refers to *Osgierius Alferius. Rer. Italic. XI. 142. Turzanus de Castronovo*, in *M.S. in the Royal Athenæum at Turin*, Vol. II. 344, and to *Muratori, antiqu. Italic. diss. XVI. Mercatura de' Fiorentini, tom. II. 126.*

Cibrario also fully confirms what we have said under *BANK*, that the word *BANK* is synonymous with the Italian *MONTI*. He also uses *BANCO* as synonymous with *MONTI*, and meaning a *public debt or fund*. At p. 530 he says.—“Circa alla teoria del credito, che diasi invenzione di comuni Italiani, è noto che il primo *BANCO*, o *debito pubblico*, fu eretto a Venezia nel 1171. Nel secolo XIII v'ha memoria di carta monetata a Milano. Il credito fu rimborsato. Un *MONTE*, o *debito pubblico*, fu stabilito in Firenze nel 1336.” This fully shews that *banco* and *monte* meant the same thing.

The volume concludes with eight tables, shewing the prices of a great variety of things, as well as the interest of money, in the 13th and 14th centuries.

CICERO, MARCUS TULLIUS. Born at Arpinum, the 3rd of January, 106 B. C., killed on the 7th of December, 43 B. C.

We only cite this eminent person here, to shew the strange influence which ill-considered prejudice held over his mind in commercial subjects, and that he says that no retail dealer can succeed without lying. He says that some means of acquiring wealth are reputable, and others disreputable. Among the latter are tax gatherers and usurers. Those, too, are base in which wages are paid not for *art*, but for *labor*; as well as those who buy from merchants to sell again immediately, for they cannot succeed unless they lie much. *De Officiis* I. 42. This curious prejudice, that men could not make any profit in shopkeeping without cheating, long prevailed.

CIESZKOWSKI, AUGUSTE, Count, was born at Sucha, in Poland, the 12th September, 1814. He has written a considerable number of works of a philosophical and transcendental nature, in German and Polish. He has contributed to the *Journal des Economistes* several articles. He was a member of the Prussian National Assembly in 1848.

Du crédit et de la circulation. Paris, 1839. 2nd Edit. 1847.

Under ordinary circumstances we should have passed over this work without notice, merely lamenting that the author had wasted so much

ingenious labor in bringing forward as new, the doctrines of John Law, which have seduced so many persons. But when we find that several of the ablest economists on the continent have approved of Count Cieszkowski's doctrines, the matter assumes a very different aspect indeed, and is calculated to inspire some alarm, that these pernicious follies should become more popular.

To our inexpressible amazement, economists so well known as M. Joseph Garnier, M. Baudrillard, the associate of M. Chevallier at the Collège de France, and Professor Boccardo, the author of the great Italian Dictionary of Political Economy, have all adopted the doctrines of Cieszkowski.

We must accord one merit to Count Cieszkowski. He tells us very distinctly what he means. He does not envelop his ideas in a cloud of words, out of which the bewildered reader finds it impossible to discover the author's meaning. On the contrary, he tells us exactly what he thinks wrong, and what he thinks right. We therefore know exactly where to hit him. We have only to show that his fundamental conception, as clearly expressed by himself, is nothing but a palpable error, which any lawyer or merchant in the world would immediately detect, and the whole of his superstructure falls to the ground in ruins.

He very justly dwells on the importance of the subject of Credit, and the great evils which a mistaken conception of its nature may produce. He then examines the definition of credit, and he says that it has usually been considered as an anticipation of the future, which he says is a capital error in theory, and only true in a very restricted sense, but eminently false as an ultimate and absolute definition.

He then says, p. 6.—“*Le crédit est la métamorphose des capitaux stables et engagés en capitaux circulants ou dégagés*; c'est à dire, le moyen qui rend disponibles et circulables des capitaux qui ne l'étaient point, et leur permet par conséquent de se porter partout où leur besoin se fait sentir. Cette définition fondamentale nous suffit comme point de départ pour fixer les idées.”

Now the meaning of this is perfectly plain, and is fully illustrated by his subsequent proposals, as well as by the ideas of the authors who have unfortunately followed him. (*BAUDRILLART*; *BOCCARDO*; *GARNIER*.)

Count Cieszkowski conceives an instrument of credit to be one like the title deeds to an estate, or a bill of lading, or a dock warrant, which represents property, and may be passed from hand to hand, with greater facility than the property itself. He imagines that these are similar to bills of exchange, which transfer the right to so much money.

But every lawyer and merchant in the world, who gives a moment's reflection to this idea, will at once perceive its gross fallacy. The title deeds to an estate, a bill of lading, and a dock warrant, are precisely what credit is NOT. They are documents which are expressly bound down and tied to some specific property, and cannot be separated from it.

Now if Count Cieszkowski would inform himself of the first principles of law and commerce, he would know that the fundamental notion of an instrument of credit is that it is *expressly forbidden to be attached to any specific property whatever.*

That is the very circumstance from which it receives its name of *credit*. It circulates merely on the *belief* that it can be exchanged for money. But bills of lading and dock warrants are not *credit* at all, because they are known to be attached to certain things.

The fundamental distinction, then, between bills of lading or dock warrants, and instruments of credit of all sorts, is, that the former are titles to *things*, the latter are universally claims against the *person*. And this is the Pons Asinorum of political economy. (BILL OF EXCHANGE; BANK NOTE; BILL OF LADING; DOCK WARRANT; CREDIT.)

At p. 27 he opens out against the circulation of instruments of credit.—“Mais le crédit de pure circulation, cette fantasmagorie industrielle et financière, qui équivoque des ombres sans corps, et qui pourtant les rend *pesantes*, contradiction physiquement insoluble, et qui l'industrie nous présente néanmoins dans ces valeurs purement *negatives*, qui ne sont que des *charges*, qui n'ont jamais rien produit, et ne peuvent rien produire.” It is curious that M. Cieszkowski has here just hit upon the right expression for credit,—it is *negative*,—but he says this is a physical impossibility. We hope we have shown that the explanation is perfectly possible. (CREDIT.)

At p. 44 he brings forward his own plan:—“Eh bien, des titres de dépôts réels, d'hypothèques engagées, enfin, de gages actuel de toute espèce, émis en circulation sous une forme générale, par une institution *universelle* de crédit (au lieu du papier de banque, qui n'est que *signe*, abstraction faite de ses autres défauts.”) He then compares them to warrants:—“Les warrants-là, dis-je, circuleraient indéfiniment, puisque leur destination n'aboutirait à aucune consommation, comme cela a lieu pour les denrées commerciales; mais qu'au contraire, c'est leur circulation seule qui constituerait leur usage et leur destination. Ce serait donc une monnaie parfaitement analogue à la monnaie métallique, puisqu'elle porterait en elle-même sa garantie *spéciale* et déterminée, n'étant en réalité qu'un fonds réel rendu circulaire.”

Now here we have his plan clearly explained. And we lament to say that Professor Boccardo has fallen into exactly the same error. He in his Elements of Political Economy, says that a warehouse at the docks which gives warrants, is like a bank which issues notes.

This error is of the most fundamental nature, and of most momentous consequence. A dock warehouse and a bank do *not* resemble one another, and the documents issued by them are fundamentally distinct. The former are not credit, the latter are. In a dock warehouse the goods remain the absolute property of the depositor, which he can always identify, or transfer to any one else. The dock master has no property in them. Consequently the document and the goods are one property, and circulate together.

But in a bank the case is totally different. The money in the bank is the absolute property of the banker, and the document of credit only is the property of the depositor, who has no right to any specific money whatever. The consequence is, that the money and the document are two properties, and circulate independently of one another.

The consequences of this are very important. Bills of lading and dock warrants have no value of themselves, but instruments of credit are articles of separate and independent value, like any other exchangeable property. The *value* of all the bills of lading and dock warrants in England is simply *nothing*. The *value* of all the forms of credit cannot be less than £600,000,000, at the lowest computation. And this, as every lawyer knows, is separate, exchangeable property, just like any other.

The bills of lading or dock warrants are in no way auxiliary or subsidiary to the metallic currency, or substitutes for it, whereas credit is always auxiliary or subsidiary to, or a substitute for money.

Consequently the institutions proposed by M. Cieszkowski would not be institutions of credit at all; and the excellent Economist, Professor Boccardo, must have been imitating the father of poetry in one of his nodding fits, when he could suppose that a Dock Warehouse was an institution of credit like a Bank.

Now the documents issued as M. Cieszkowski proposes, must have some value in money expressed on them. It would be impossible for them to circulate unless some attempt were made to fix the value of the property they represented. A title to land would require to have the value of the land expressed upon it, and so on of other things.

But what is this but John Law's identical scheme? His plan was to coin into money all the property in the kingdom, which is exactly M. Cieszkowski's plan, and that of many others. At p. 131, he bestows the highest commendation on Law.

Now what do the excellent Economists mentioned above say to this? They all mention Law with the utmost horror, and yet by approving and adopting M. Cieszkowski's ideas, they are absolutely adopting Law. We earnestly implore of them all to re-consider the fatal doctrines they have so unadvisedly been led to sanction.

CINCINNATUS. Pseudonym.

A letter to the Right Honorable Lord North, recommending a new mode of taxation, through which vice may be checked, and the poor be relieved. London, 1770.

Remarks on the Anti-Corn Law mania. London, 1846.

Terms of conciliation, or considerations on a Free Trade in Ireland. London, 1779.

CIRCULATING MEDIUM. The term *circulating medium* is used by all Economical writers as synonymous with currency; we therefore refer to the article CURRENCY for a full treatment of the subject.

This term came into common use in the last decade of the last century, as we learn from Mr. Fox, and Mr. Fortune. (FORTUNE.)

We shall not examine here the various opinions which have been held as to the meaning of the word currency, or circulating medium, as that is fully done under the former term. We will only say here that every scientific analogy shews that the term circulating medium, must signify the medium, or means by which the operation of cir-

ulation is effected. What circulation is, we have explained in the following article.

This point deserves attention, because it is by no means uncommon to suppose that circulating medium means the medium which circulates itself, and those who give it that interpretation are apt to confine it to money and Bank notes, because those two agents are more commonly seen in general circulation. This question is by no means of small importance, because there are many other instruments of credit besides Bank Notes, which circulate commodities, but which do not enter into general circulation. And there has arisen a strong division of opinion among recent Economists, whether any other forms of credit besides Bank Notes are to be included under the title currency, or circulating medium.

Now it appears to us that scientific analogy is decisive on this point. In scientific language a medium invariably means something by, or through, which something else is done. Hence we have only to consider the *means* or *agent* which causes circulation, and then we have at once the extent of the circulating medium. Now it is quite clear that other forms of credit besides Bank Notes circulate commodities, and consequently that money and credit in all its forms constitute the circulating medium. The differences in the forms of credit are only differences in *degree*, and not in *kind*.

It will assist us also, to see in what light the French Economists interpret the expression circulating medium. Now they always interpret it by the expression *l'agent de la circulation*, which exactly agrees with what we have said above.

We may also illustrate this view by another case. A newspaper is also called a circulating medium. Of what is it the circulating medium? Of intelligence. And it is not called the circulating medium of news because it circulates itself, but because it *circulates news*. In the indictment against Joseph Gerrald, in one of the famous trials for sedition in 1794, he is charged (Howell's State Trials. Vol. XXIII. p. 815) with making seditious speeches, the substance of which was "published in a newspaper published at Edinburgh, intituled '*The Edinburgh Gazetteer*,' and through that *medium circulated* among the lieges." Here we have the exact analogy. What was the circulating medium? The newspaper. Why was it called so? Because it was the medium through which the seditious matter was circulated among the lieges. Was it called so because it circulated itself? Certainly not; because if it had been posted up on a wall, and had been read by people standing still, it would still have circulated the intelligence, without circulating itself. How it circulated the intelligence was, therefore, a matter of secondary consideration, though it usually happens that newspapers do circulate themselves as well.

It is just the same with the circulating medium of commodities. How it performs its duty is a matter of secondary consideration. It is certainly true that money and bank notes circulate themselves, as well as circulating commodities, a Bill of Exchange in a less degree. But there are also other forms of credit besides these, which circulate commodities without entering into general circulation themselves. And these are book

credits, or book debts. What the amount of these may be is of course beyond any one's power to say. In all probability they exceed the amount of bills and notes in circulation by many times.

Now these book credits are manifestly of the same nature as Bills of Exchange, only they are not put into a form to circulate themselves. But it is clear that they arise out of the transfer of a commodity, just as a Bill of Exchange does, and it follows from the preceding considerations that they form a part of the circulating medium of the country. (CURRENCY.)

CIRCULATION. In its early stages commerce was carried on by a direct exchange of articles which were reciprocally wanted, and in this form it is usually called *BARTER*, or sometimes *EXCHANGE*. The excessive inconvenience of this is too well known to need description here. An intermediate merchandize was then introduced called *money*, and transactions in which money is used are not called *barter*, but *SALES*.

Aristotle long ago pointed out the true character of money. He says (ARISTOTLE) that when a person has done some service, and wants no immediate return for it, he must receive something by way of pledge that he shall receive something in exchange at a future time when he requires it. And that pledge, which is the record and the measure of the service due to him, is called *MONEY*.

A transaction in which any commodity or service is exchanged for money, instead of an equivalent, has been well called by J. B. Say (SAY, J. B.) a *demi-exchange*. And the conveniences of this method of conducting commerce so greatly preponderate over those of direct exchange, or barter, that commerce is now almost entirely resolved into these *demi-exchanges* or sales. (CREDIT; CURRENCY.)

And this is the proper meaning of the word *CIRCULATION*. Barter or Exchange is where two services of any kind are exchanged directly. Sale, or demi-exchange, or circulation, is when any service is exchanged for some intermediate merchandize, which will enable its owner to obtain some service in exchange for it at some future time.

Hence we see the character of money. It is an instrument of *GENERAL CREDIT*. It is taken in exchange for any service because the person who does so believes he can obtain something in exchange for it at a future time, when he pleases. And as it is the instrument, or medium, by which circulation is effected it has also been called *Circulating Medium*. (CIRCULATING MEDIUM.)

Money, we thus see, is general credit. But money is not the only circulating medium. The seller of a service, instead of demanding money for it, may rest contented with the simple *promise* of his debtor to pay him at a future time. This promise, it is clear, is only a pledge from the individual debtor, it is therefore only *particular credit*. But, nevertheless, it is of the same nature as money, only it is a lower degree. The *obligations to pay* may be recorded on paper, and may be exchanged for services, and are capable of circulating commodities.

These obligations to pay are in two forms,

orders to pay, and *promises* to pay, and are of different sorts. But they are known by the general name of instruments of *CREDIT*. The subject of Credit forms a very subtle branch of Law and Political Economy, and is developed under the article *CREDIT*. It is clear from what has been said, that circulation is effected by money and instruments of Credit of all sorts, and therefore money and credit form the circulating medium, or currency. (*CURRENCY*.)

The word *circulation* is also used very improperly, to mean notes issued by a banker. This is an inaccuracy of a similar nature to that by which *currency* is used to signify money. It is not, however, so firmly established yet in common usage as the latter one.

It is one of the most objectionable terms in use. To call the notes which circulate, the circulation, is as gross a confusion of idea as to call a wheel a *rotation*, and, in fact, involves the same error as to confound a force with its effect.

It is clear from what has been stated above, that every transfer of money in commerce calls forth something in exchange for it, and is consequently an act of circulation, and the amount of the total transfers of currency which take place is properly called the *CIRCULATION*. Hence, a single piece of money may add considerably to the circulation, for every time it is transferred, it is an addition to the circulation, though it is no increase of the currency. The words *currency* and *circulation*, therefore, clearly mean different things; the one is the substance itself, and the other is the amount of transfers from hand to hand. It is also clear that the *currency* and the *circulation* do not bear any fixed relation to one another for there may be a large amount of currency in a country, yet if the industrial operations be few, there will be a small circulation. On the other hand, there may be a small amount of currency, yet if the people be active and industrious, it will pass frequently from hand to hand, and there will be large circulation.

The distinction then, between *currency* and *circulation*, is analogous to that between a body in motion, and its momentum, or its weight multiplied by its velocity, which is its *effect*. If a body of 100 pounds weight move with a velocity which we may call 1, its momentum will be 100. Now if we diminish the weight to 50, but can double the velocity, the momentum will still be 100 the same as before. The operation of the *currency* is precisely analogous to this. Its useful effect is the result of its combined amount and rapidity of circulation, which we call the *CIRCULATION*. If two transfers of £50 take place in the same time that one transfer of £100 takes place, the useful effect, or circulation, will be the same. Thus, let us suppose that in any given time A has a transaction with B to the amount of £100, out of which profits arise. Then if during the same time A had a transaction with B to the amount of £50, with a proportional profit, and B had a transaction with C to the amount of £50, with a similar profit, it is clear that the two transfers of the £50 in the same time as the one transfer of the £100, are equally advantageous to the community at large.

The effect of the circulation of money is sometimes apt to be overlooked, because it passes from hand to hand without any record being marked

on the face of it to denote how many transfers it has effected. But when circulation is carried on by means of bills of exchange, its effect is more clearly seen, because it is usual for every one who passes away a bill of exchange, to indorse it. Thus a record is preserved of the number of transfers it has effected.

Now it is held in law that every indorsement is equivalent to a fresh drawing; thus every bill of exchange includes within itself in reality, as many bills as there are indorsements, and this is just what we have explained to mean *CIRCULATION*. The total useful effect of the bill of exchange in commerce, therefore, is estimated by the amount of the bill multiplied by the number of indorsements on it. And it is clear that a bill of exchange of £100, with twenty indorsements on it, has in reality done a duty equivalent to twenty bills for £100, with only one indorsement. Because each of the twenty persons through whose hands the bill passed might have given a new bill instead of passing on the old one. Formerly the whole circulation of Lancashire was carried on by means of bills of exchange, which had sometimes as many as 150 indorsements on them before they were paid. It is clear that these bills had produced the same effect in commerce as 150 separate bills to the same amount. Hence the momentum or useful effect of one bill which passes through 150 transfers is equivalent to that of 150 bills of similar amount which pass through only one transfer.

Now it is clear that the very same arguments apply to money, and that its useful effect, or momentum, or circulation, is measured by its amount multiplied into the number of its transfers. Just as the useful effect of a merchant vessel is measured by the amount of goods she carries, multiplied into the number of voyages she makes. One vessel which makes ten voyages produces the same effect as ten vessels which make one voyage.

These considerations give a simple explanation of the apparent paradox we mentioned under *CAPITAL*, § 100, that *every man's income is paid out of the income of some one else*.

Let us suppose that A has a sum of money and wants something in the way of B's business. He deals with him, and pays him money. Part of the price goes to replace B's capital, and part to form his income. B then having thus made an income from his dealing with A, wants something from C, and pays him for it. That payment goes partly to replace C's capital, and partly to form his income. C thus having made an income by dealing with B, wants something from D, and pays him for it; that payment goes partly to replace D's capital and partly to form an income. D in a similar way deals with E, and E with F, and F with G, and so on, till we come to Z. Then Z wants something from A, and deals with him, and thus the money comes back again to A, and is ready to perform a similar circuit in endless succession; and it is this successive transit of money through the various hands that gives them their income. Thus the proposition is manifest.

This explains how the incomes of the people of this country are paid by comparatively a small sum of money. The incomes of the people are supposed, not to be less than 1,000 millions, and yet there are not supposed to be more than 60 or 70

millions of specie in the country, if so much. How then can 1000 millions of income be paid with 70 millions of specie? Simply by the circulation or transit of the specie from one person to another. The very same pieces of money become income to a hundred persons in succession by the act of circulation. A piece of money that passes through one hundred hands in commerce calls forth a separate article of value on each transfer, and thus calls forth 100 times its own value; and it is out of these successive creations of value that income arises.

Hence the apparent paradox vanishes, and it appears that £1 may call forth £100 of profit in the community by a sufficient rapidity of circulation, and each of these profits may be taxed.

CLARENDON, R. V.

A sketch of the revenue and finances of Ireland, and of the appropriated funds, loans, and debt of the nation from the commencement. London, 1791.

CLARK, WILLIAM.

Thoughts on the commutation or abolition of Tithes. Bath, 1815.

Thoughts on the management and relief of the poor. Bath, 1815.

CLARK, MATTHEW ST. CLAIR, AND D. A. HALL.

Legislative and documentary history of the Bank of the United States; including the original Bank of North America. Washington, 1832.

CLARKE, THOMAS BROOKE.

The case of Ireland; setting forth various difficulties experienced in its commercial intercourse with Great Britain since the Union. London, 1802.

The political, commercial, and civil state of Ireland. London, 1799.

A statistical view of Germany. London, 1790.

A survey of the strength and opulence of Great Britain. London, 1801.

CLARKE, WILLIAM, M.A., Prebend of Chichester Cathedral.

The connection of the Roman, Saxon, and English coins, deduced from observations on the Saxon weights and money. London, 1767.

CLARKSON, THOMAS, who may be called the patriarch of negro emancipation, was born at Wisbeach, in 1760. His father was a clergyman and master of the free grammar school there. He was educated at St. Paul's School, London, and St. John's College, Cambridge, where he gained the first prize for a Latin dissertation proposed to the middle bachelors. The next year, in 1785, the subject offered as a prize for senior bachelors was, *Anne liceat invidios in servitutum dare?* Clarkson gained this prize also, and he was so horrified and excited at the atrocities he read of as being perpetrated, that he resolved to devote himself for life to the abolition of the Slave Trade. Seldom has an idea conceived by so humble an individual been followed out with such perse-

vering ardour, and crowned with such glorious success. Having become acquainted with Wilberforce, he made the first motion in the House of Commons in 1787, and after 20 years of agitation, their efforts were rewarded in 1807 by the prohibition of the Slave Trade. After 26 years more, the further triumph was obtained of the total abolition of Slavery in the British dominions. Clarkson had the happiness of living to see this glorious consummation of his labors. He died 26th September, 1846. Probably there is no other instance of a University prize essay having led to such benefits to humanity.

An essay on the slavery and commerce of the human species. London, 1788.

The history of the rise, progress, and accomplishment of the abolition of the Slave Trade. London, 1808.

CLARKSON, WILLIAM.

An enquiry into the causes of the increase of Pauperism and Poor rates, &c. London, 1815.

CLAVIERE, ETIENNE, was born at Geneva, 27th January, 1734, where he became a banker. In 1791 he was elected to the Assembly, and was for a short time minister of finance. He belonged to the Girondin party, and was involved in their fate. To avoid execution he destroyed himself 8th December, 1793.

Opinions d'un créancier de l'état, sur quelques matières de finances importantes dans le moment actuel. Londres, 1789.

Lettres écrites à M. Cerutti sur les prochains arrangements de finance. Trois publications. Paris, 1790.

Observations sommaires sur le projet d'une refonte générale des monnaies. Paris, 1790.

*Réponse de M. C. à M. * * député à l'Assemblée Nationale, concernant les Assignats.* Paris, 1790.

A l'Assemblée Nationale sur les finances. Paris, 1791.

Pétition faite à l'Assemblée Nationale sur le remboursement des créances publiques non vérifiées, et sur le paiement des domaines nationaux en assignats et espèces effectives de 5me Novembre, 1791. Paris, 1791.

Réflexions sur les formes et les principes aux quels une nation libre doit assujeter l'administration des finances. Paris, 1791.

Adresse de la Société des Amis des Noirs à l'Assemblée Nationale. Paris, 1791.

De la conjuration contre les finances, et des mesures pour en arrêter les effets. Paris, 1792.

Du numéraire métallique; ou de la nécessité d'une prompt refonte des monnoyes, &c. Paris, 1792.

Mémoire lu à la Convention Nationale le 5me Octobre, 1792.

Réponse à la lettre de M. Montesquieu sur une écrit intitulé, De la conjuration contre les finances. Paris, 1792.

CLAY, JOHN, of Oxford.

A free trade essential to the welfare of Great Britain, or an inquiry into the cause of the present distressed state of the country. London, 1819.

CLAY, WILLIAM, SIR, Baronet.

Remarks on the expediency of restricting the issue of Promissory Notes to a single issuing body. London, 1844.

CLAYTON, DAVID.

A short system of trade, or an account of what in trade must necessarily be advantageous to the nation, and what must of consequence be detrimental. London, 1719.

CLAYTON, JOHN, Solicitor.

Observations on the proposed decimal coinage. London, 1856.

CLEARING HOUSE. Boisguillebert, in his *Dissertation sur la nature des richesses*, a work which well deserves attention from its being one of the ablest of the early treatises against the mercantile theory, mentions the fair at Lyons, where it was customary for the merchants to balance their debts without the payment of money. This custom, we believe, began in the 16th century. There was a great annual fair at Lyons, and the French merchants, instead of making their bills payable every three months or so, by which they would have had to keep a stock of bullion ready to meet them and unemployed, made them payable only at the fair of Lyons. The bills circulated throughout the country, and got, perhaps, covered with indorsements. At a certain period during the fair, the merchants met for a general settlement and adjustment of accounts, and Boisguillebert says that by this means transactions to the amount of 80,000,000 were settled without the use of a sou in money.

The Clearing House of London is instituted to perform the same service to bankers as this custom of the merchants at Lyons.

The first plan of the kind in this country was carried out at Edinburgh. For a considerable period there, the rival banks used to do all they could to injure each other. It was no uncommon thing for them to collect a large quantity of each other's notes and suddenly present them for payment, in the hope of ruining their rivals. At last, however, they became sensible that this undignified conduct was mutually injurious, and they agreed that they should meet twice a week, and adjust their respective claims, and that they should make no demand for money on each other, except at these times. In 1775 the London bankers established a similar daily custom among themselves.

We may explain the advantages and the operation of the Clearing House in somewhat greater detail to our readers.

Every London banker has every morning claims against all, or at least, most, of his neighbours, and of course he has to meet claims from them. It used to be the custom for every banker, the first thing in the morning, to send out a number of clerks to collect the debts which were due to him from his neighbours, who, of course, were obliged to keep cash or notes to meet them. He, in a similar way, was obliged to keep a large amount of cash or notes to meet his neighbours' claims against him. The consequence of this was very manifest—a very useless necessity for a very large quantity of money. To show how this was, let us take an example. Of course as the clerks collected debts due from many bankers, it would be impossible to tell whether the claims of any two were equal until the accounts were brought in. But suppose, for example, that banker A

had a claim against banker B for £10,000; and banker B had a claim against banker A for an exactly equal amount. Now by the method of collecting just detailed, A's clerk would go and get £10,000 from B, and B's clerk would go and get £10,000 from A, consequently there would be nothing but a payment and reception of £10,000 on each side. Consequently to adjust their claims £20,000 in money would be required.

The least observation would show that it would be a much more sensible thing for them to ascertain their mutual claims against each other, before they began to pay: It is clear that in the case supposed above, if they met and found their mutual claims equal, there would be no use for any money at all, and the £20,000 so uselessly kept for the purpose of being marched backwards and forwards between their offices, might be profitably employed in trade, and become a *bonâ fide* augmentation of capital.

If their claims were not mutually equal, of course they might be set off against each other, and only the *balance* paid in cash.

The Clearing House as originally instituted was for this purpose. The clerks, instead of going round to the different bankers, met together in a room and set off their different claims against each other, and the balance was paid according as it happened to be due. It is stated in the Bullion Report that in 1810, there were 46 bankers who cleared, and that the average amount of drafts, passed through the clearing house every day, was about £4,700,000, and that all the balances on this account were settled by £220,000 in Bank Notes.

This institution was confined to the private bankers. The Bank of England was not admitted to it, and is not to the present day. For twenty years after the foundation of Joint Stock Banks, they were jealously excluded from it, until in 1854, the intolerable inconvenience caused to them by the large amount of notes they had to keep idle to meet the "charges," as bankers' claims are called, set a question afloat of organizing a clearing house among themselves. The private bankers then agreed to admit them into the Clearing House.

At the same time the method of doing business was reorganized and improved. The different bankers no longer settle their differences *inter se* with cash, and by the present mode no money or notes at all are used.

The present method of conducting business is as follows:—

Each clearing bank opens an account with the Bank of England, and an officer has been appointed, called the Inspector of the Clearing House, who also has an account with the Bank of England.

The bills and cheques which each banker holds on the other clearing banks are sorted in separate parcels, and at 10.30 a clerk from each bank arrives at the Clearing House. He delivers to each of the other clerks the claims he has against his house, and receives from each the obligations due from his own. When these obligations are interchanged, each clerk returns to his own bank. The same process is repeated at 2.30. Each bank has till 4.45 to decide whether it will honor the drafts upon it; if it does not return any drafts upon it before that hour, it is held to have made

itself liable on them to the Clearing House. At 4.45 the business closes, and the accounts are made up.

Printed lists of the clearing banks are made out for each bank with its own name at the head, with the word "debtor" on one side and "creditor" on the other. The clerk of the Clearing House then makes up the accounts between the banks, and the difference only is entered in the balance sheet according as it is debtor or creditor to each bank in succession. A balance is then struck between the debtor and the creditor columns,

exhibiting the sum due from, or owing to, the bank on the whole of its transactions, and the paper is delivered to the clerk, who takes it back to his own bank.

The balance is not then paid to, or received from, the other banks as formerly, but it is settled with the Inspector of the Clearing House, by means of a species of cheque appropriated to the purpose, called *transfer tickets*.

These transfer tickets are of two colours, white and green. If the bank is debtor on the balance, it gives a

WHITE TICKET.

SETTLEMENT AT THE CLEARING HOUSE.

London, 186

To the Cashier of the Bank of England.

Be pleased to transfer from our account the sum of and place it to the credit of the account of the Clearing Bankers, and allow it to be drawn for by any of them (with the knowledge of either of the Inspectors, signified by his countersigning the drafts.)

£

SETTLEMENT AT THE CLEARING HOUSE.

BANK OF ENGLAND,

186

A TRANSFER for the sum of has this evening been made at the bank from the account of Messrs. to the account of the Clearing Bankers.

For the Bank of England,

£

This Certificate has been seen by me,

Inspector.

If the bank is creditor on the balance it gives a

GREEN TICKET.

SETTLEMENT AT THE CLEARING HOUSE.

London, 186

To the Cashier of the Bank of England.

Be pleased to CREDIT our account the sum of out of the money at the credit of the account of the Clearing Bankers.

£

Seen by me,

Inspector at the Clearing House.

SETTLEMENT AT THE CLEARING HOUSE.

BANK OF ENGLAND,

186

The account of Messrs. has this evening been CREDITED with the sum of out of the money at the credit of the account of the Clearing Bankers.

For the Bank of England,

£

By this admirable system there is not a single bank note required for the settlement of many millions of money every day.

The two methods which London bankers have of settling their mutual claims which we have described—by collecting the charges in the morning, and by the Clearing House, suggest several important reflections upon the circulating medium, the Bank Act of 1844, and prices. That Act fixed £14,000,000 as the limit below which the requirements of business would probably not permit the internal circulation to fall. But that amount was fixed with reference to a particular method of doing business. If all the London bankers were admitted into the Clearing House, there would be a vast amount of bank notes disengaged from business, and they would either disappear from circulation altogether, or they

might be employed as fresh capital in discounts. On the other hand, supposing the Clearing House dissolved, and the clearing banks to revert to the barbarous method of settling their mutual claims practised by the non-clearing banks, many millions of bank notes would be required for no other purpose but to settle their mutual claims. How many millions would be necessary we cannot say. Many years ago it was stated in evidence before the House of Commons, that the London and Westminster Bank was obliged to keep £150,000 in notes, idle for this very purpose; considering that there were then upwards of 60 banks in London, even supposing that they were on an average obliged to keep half that sum idle, that would make a difference of £4,000,000, required according to the different methods of doing business. And this quantity of notes would have no

effect on prices or business. Consequently we observe that the quantity of bank notes in circulation is no absolute guide to the magnitude of transactions carried on, nor to prices.

At the beginning of 1860, a Clearing House was instituted for country bankers.

CLEIRAC, ESTIENNE, an advocate of Bordeaux, in the 17th century, published a work in which details are given of the Bank of Venice, which we have not been able to see.

CLELAND, JAMES, LL.D.

Enumeration of the inhabitants of the City of Glasgow, and County of Lanark, for the government census of 1831. Glasgow, 1832.

The rise and progress of the City of Glasgow. Glasgow, 1820.

CLEMENCEAUX, BENJAMIN.

Propositions générales sur les propriétés et l'usage de l'eau. Paris, 1804.

CLEMENT, AMBROISE, born at Paris, 21st March, 1805. Secretary to the *mairie* of St. Etienne.

Recherches sur les causes de l'indigence. Paris, 1846.

Des nouvelles idées de réforme industrielle, et en particulier, du projet d'organisation du travail de M. Louis Blanc. Paris, 1848.

CLEMENT, PIERRE, born at Draguignan, the 2nd June, 1809. An official in the department of finances.

Histoire de la vie et de l'administration de Colbert. Paris, 1846.

This work was crowned by the French Academy in 1848. *Le gouvernement de Louis XIV, ou la cours, l'administration, les finances, et le commerce de 1683 à 1689.* Paris, 1848.

Jacques Cœur et Charles VII, ou la France au XVme siècle. Paris, 1852.

Histoire du système protecteur en France depuis le ministère de Colbert jusqu'à la révolution de 1848. Paris, 1853.

Etudes financières et d'économie sociale. Paris, 1855.

CLEMENT DE BOISSY, A. ALEXANDRE.

Suppression de la mendicité. Paris, 1790.

CLEMENTE, AFRICO.

Trattato dell' agricoltura. Venetia, 1572.

CLEMENTS, Viscount.

The present poverty of Ireland convertible into the means of her improvement under a well administered Poor Law.

CLERMONT TONNERRE, STANISLAUS DE, Count.

Opinion sur la propriété des biens du clergé. Paris, 1801.

CLIBBON, EDWARD.

American prosperity, an outline of the American debt, or banking system. London, 1837.

CLINTON, HENRY, Colonel.

The best possible government at the least possible cost, impossible until commerce is regulated. London, 1857.

CLISSOLD, HENRY.

Prospectus of a central national institution of home colonies, designed to instruct and employ unoccupied poor on waste lands in spade husbandry. London, 1830.

CLODIUS, CHRISTIANUS CONRADUS.

De nummorum Ebraicorum inscriptionibus Samaritanis. Helmstädtii, 1712.

CLUGNY de NUIS, J. E. BERNARD.

Compte rendu pour l'année, 1776.

COAD, JOSEPH

A new plan of taxation. London, 1807.

COBBET, WILLIAM. This remarkable man was born in March, 1762, the son of a farmer, at Farnham, in Surrey. He is not of sufficient importance in an economical point of view for us to give details of his strange career, but we may mention that in his Political Register, he constantly and strenuously maintained the depreciation of the Bank Notes from the year 1803, during seven years before the appointment of the Bullion Committee, and six years before Ricardo sounded the alarm in the pamphlet which brought him into public notice. This, among other things, made him an object of hostility to a certain party. He also claims to have exposed the fallacy of the sinking fund, which was supposed to have worked such marvels, considerably before Dr. Hamilton, who has usually the credit of it. Cobbett died on the 18th June, 1835.

Paper against Gold; or the history and mystery of the Bank of England, of the Debt, of the Stocks, of the Sinking Fund, and of all the other tricks and contrivances carried on by the means of Paper Money. London, 1828.

This is the reprint of a series of twenty-nine letters Cobbett addressed to the public, from the 30th August, 1810, to the 2nd August, 1811, on the subject of the depreciation of the Bank Note, just after the presentation of the Bullion Report. Though rather tedious and wordy, owing probably to their being in the form of letters published at intervals, they show a very thorough mastery of the subject, except on one or two points, and exhibit all the author's power of pungent reasoning and sarcasm. They contain much interesting and authentic information of the state of things then existing, and should be read by all wishing to form a judgment of that period.

Cobbet's legacy to laborers; or what is the right which the Lords, Baronets, and Squires have to the land of England. London, 1834.

COBDEN, RICHARD. The specious plausibilities of protection to native industry became general throughout Europe in the beginning of the 17th century, and were formally inaugurated by Henry IV. of France, and the Great Sully. (SULLY.) They received a still stronger organisation from the genius of Colbert (COLBERT), and

became the accepted faith of statesmen and governments. Nevertheless, at the close of the century a few sagacious writers began to proclaim their fallacy. From the beginning of the 18th century we find a continuous stream of authors, essayists, and poets, who began to descry afar off the advent of universal Free Trade. As the century rolled on a general reaction against the doctrines of Protection commenced in the minds of the most sagacious philosophers of France, Italy, Spain, and England, and the age gave manifest signs of the birth of a new science. Among an increasing crowd of illustrious writings in western Europe, the most illustrious effort was the *Wealth of Nations*. The first school of economists died out in France, but it recaptured the flame from Adam Smith, and J. B. Say was the worthy founder of a second school of thought in that country.

Notwithstanding these brilliant efforts, the minds of legislators seemed to be impervious to the dawning light, as they usually are. After 1815, economical darkness seemed deeper than ever. But at last, in 1820, when the system of Protection seemed to be strained to its utmost in this country, it began to break up, and from that time a continual progress in the direction of Free Trade may be dated. (HUSKISSON.)

Nevertheless, the great stronghold of Protection in England, the Corn Laws, seemed unassailable; for though changes might be made in them, the idea that they could ever be got rid of entirely seemed to be the dream of a visionary. It is true that a gallant band kept up the apparently hopeless contest in Parliament, but with no increasing success. It long seemed that the most beneficent truths ever discovered by men, might amuse philosophers, essayists, and poets in their closets, but they might fret in vain against the stolid resistance of prejudice and interest.

The great captain who, without probably discovering any positively new truth himself, by a fortunate conjunction of circumstances, and a happy genius eminently suited to the times, led the array of economists to that renowned victory of peace, which gave practical effect to the discoveries of science, and produced a beneficent revolution in legislation, which is destined to be felt with ever-widening blessings to the remotest ages, was RICHARD COBDEN.

Mr. Cobden was born in 1804, at Dunford, near Midhurst, a small property which belonged to his father, who was of the class of small proprietors, or yeomen farmers, who were formerly more common than at present. His father dying when his son was young, he was left to the care of an uncle who was in business in London. He then entered a calico printing firm in Stockport as a partner, and travelled occasionally on the continent in connection with its business. In 1834 he visited Egypt, Greece, and Turkey. In 1835 the editor of the *Manchester Times* received a series of anonymous letters shewing very remarkable ability. For long he endeavoured to discover their author, but without success. However, he evidently saw that they came from some one who was then probably unknown, but was destined to make a great figure in the world. About the same time a copy of a pamphlet just then published, entitled *England, Ireland, and America*, was put into his hands by a friend, with the words "from

the author," on it. He immediately saw that the handwriting on the pamphlet was the same as that of his unknown correspondent. The authorship of the letters was then plain, it was Mr. Cobden, who was only known as a successful calico printer, whose goods were then beginning to compete with the best London ones.

The subject of the Corn Laws had been stirred a few times in the Manchester Chamber of Commerce and in the House of Commons since the Reform Act, but the general abundance in 1833-34-35, in which the agriculturists suffered much, diverted the attention of the general public from them. The great majority of mankind feeling no present inconvenience, were unwilling to consider the matter, seeing that nothing was to be gained. A few only, among whom was Mr. Cobden, thought that a good opportunity to take measures as far as possible to render that prosperity permanent.

The cycle of plentiful years ended with 1836, and in the autumn of that year the price of corn began to rise. An Anti-Corn Law Association was formed in London, but it did not effect anything. In 1837 Mr. Clay moved the adoption of a 10s. fixed duty, instead of a sliding scale, but it was rejected by a majority of 223 to 89.

During the winter of 1837-8 the distress of the working classes increased considerably in consequence of the inferior harvest. On the 15th March, 1838, Mr. Villiers moved for a committee of the whole house to consider the Act, 9, Geo. IV. c. 60, relating to the importation of corn; Sir William Molesworth seconded the motion, in an able speech, but it was rejected by 300 to 95.

In the summer of 1838 the prospects of the harvest became serious, and increased attention began to be directed to the Corn Laws. Lectures began to be delivered against them. The first that lighted such a candle as has never been put out, deserve especial mention. They were Mr. Paulton and Dr. Bowring, who lectured to crowded audiences in July and August. In the month of September seven men were conversing on the subject, when one of them, Mr. James Howie, proposed the formation of an Anti-Corn Law Association in Manchester. Their names were, Edward Baxter, W. A. Cunningham, Andrew Dalziel, James Howie, James Leslie, Archibald Prentice, and Philip Thompson. The idea was immediately approved of and adopted; in twelve days 100 members joined. In the middle of October a provisional committee was announced, containing thirty-eight names, among whom was Mr. Bright. In the next week thirty-one new members were added, among whom was Mr. Cobden. Lectures were instituted, and attended by crowded and enthusiastic audiences. In December, the Manchester Chamber of Commerce adopted a petition to the House of Commons, urging them to carry out to the fullest extent, both as affects agriculture and manufactures, the true and peaceful principles of *Free Trade*.

In January, 1839, meetings to support the movement were held in several of the principal towns, and petitions were prepared and numerous signed. The association assumed the name of the "Manchester Anti-Corn-Law Association," and its objects were, to attain by all legal and peaceable means the total and imme-

diate repeal of the Corn and Provision Laws. Mr. J. B. Smith was president, and a council of not less than 100 was formed, of whom Mr. Cobden was one. An executive committee of twelve was appointed, of whom Mr. Cobden was also one.

In February a meeting of delegates from all parts of the country was held in Palace Yard. Mr. Villiers was elected their Parliamentary leader, and it was decided at once to place a notice on the books of the House. On the 18th, Mr. Villiers, after presenting a number of petitions, moved that the Corn Laws be referred to a Committee of the whole House. It was seconded by Mr. Strutt, but rejected by a majority of 361 to 172. This repulse only stimulated the delegates to more determined efforts.

On the 12th of March, Mr. Villiers moved that the House resolve itself into a Committee to take into consideration the Acts relating to the importation of foreign corn, but it was rejected by a majority of 342 to 195. The Association then determined to adopt a wider organisation, and to form a national Anti-Corn-Law League for the whole empire, with its head-quarters in Manchester; the Manchester Anti-Corn-Law Association still preserving its independent existence. They also determined to found a paper, and appeal to the public by means of tracts. In pursuance of this resolution, the *Anti-Corn Law Circular* was started, and in a few weeks reached a circulation of 15,000.

The Association had now become so large that it became indispensable to have a building of its own. It curiously happened that St. Peter's field, the scene of the Peterloo massacre in 1819, was in the possession of Mr. Cobden. This was purchased for the site of the Free Trade Hall, and thus, by a strange instance of poetic justice, the Association established its head quarters on the identical ground where a meeting assembled to petition for a repeal of the Corn Laws and Parliamentary Reform, had been brutally attacked and cut down twenty years before. A temporary building, 150 feet by 105 feet, was erected, and in January, 1840, a magnificent banquet, attended by upwards of 4,000 persons, was held, and on the following day another banquet was held by the Working Men's Anti-Corn-Law Association, at which upwards of 5,000 sat down. Both meetings were great successes, and were addressed by Mr. Cobden, and other distinguished speakers.

In March, Mr. Villiers again brought forward his motion to take into consideration the laws affecting the importation of foreign corn, which, having been dropped, was renewed in May, and rejected by 300 to 177. During this year, 1840, 763 petitions, with 175,840 signatures, for a repeal of the Corn Laws, were presented to the House of Commons; and 330,000 copies of the *Anti-Corn Law Circular* circulated.

During this time innumerable meetings were held, and an incessant agitation kept up. A crowd of able speakers perambulated the country, whose names would all deserve honorable mention, but among them all, it gradually became evident that Mr. Cobden, by his business-like, straightforward addresses, by his admirable clearness of style, his thorough comprehension of the nature and modes of thinking of his audiences, and his unrivalled powers of adapting his speeches

to their tastes, was fast rising to the first position. He now became generally recognised as the acknowledged leader of the movement, and there was a very strong desire that he should be placed in Parliament.

The whig Government was then fast dying of sheer exhaustion and inanition, and of course they, as usual, began to look out for something to galvanize their effete popularity. The rising power of the League seemed to supply the desired object. On the 30th April, Lord John Russell surprised the House by giving notice that on the 30th of May, he should move for a Committee of the whole House to consider the Acts relating to the trade in corn. On the 7th of May, he declared his intention to propose in Committee an 8s. fixed duty on wheat, 5s. on rye, 4s. 6d. on barley, and 3s. 4d. on oats, and other extensive reforms in the tariff were proposed.

The increasing power of the League by this time had inspired the Protectionist party with alarm, and counter associations were formed. The sudden adoption of liberal commercial principles roused into active resistance all the great protected interests, and gave the last shock to the feeble ministry. On a motion for admitting slave grown sugar they were defeated on the 18th May, by 317 to 281.

The proposed measures, of course, created the greatest excitement throughout the country. The League was stimulated into immense activity, and though they resolved to rest satisfied eventually with nothing less than total repeal, they determined to accept the offered instalment of reform for the present. Notwithstanding its defeat on the sugar question, the government declared its intention of proceeding with its corn measures. Sir Robert Peel saw that the moment had now come for which he had been so skilfully training the Conservative party for nine years, and he determined to forestall the ministerial proposition, by moving that the Government did not possess the confidence of the House. On the 27th of May this motion was carried by 312 to 311, which of course rendered a dissolution inevitable. It took place on the 23rd of June.

At the new elections the ministry were in an immense minority, but three of the League were returned to parliament, Mr. Scott for Walsall, Dr. Bowring for Bolton, and most important of all, Mr. Cobden, who was now the acknowledged leader of the movement, was returned for Stockport.

In the ministerial programme the Queen recommended the Corn Laws to the attention of the House, with a view to their revision. The Government was defeated in the Lords by 168 to 96.

Great was the curiosity to hear Mr. Cobden. The Protectionists prognosticated his complete failure in the House. He was nothing but a mere platform orator, only fit to speak to mobs of vulgar manufacturers, but quite unfit to address an assembly of gentlemen like the House of Commons. He would soon find his level there. Yes, said his friends, he *would* soon find his level there, and it will be among the best orators in the House. And the expectations of his friends were fully realized. Mr. Cobden's debut in the House was a great success. He spoke on the second night of the debate, and we may quote some re-

marks of his concerning the relation between the price of food and wages:—"He begged to draw the attention of the House to the relation between the price of food and the price of any other article, and the price of labor, when in a wholesome and a natural state. He could understand in the slave-holding states of America or Cuba, that the price of labor might be determined by the price of provisions. The slave-holder sat down and calculated the cost of raising his produce, and he calculated the price of labor accordingly. But he would come to another state of society, he would refer to the agricultural districts, where wages had reached the minimum, and he would ask,—was the rate of wages raised when the price of provisions was increased? They were told that such was the case, and why was it the case? Was it because the high price of food increased the demand for labor? or rather, was not the increase given out of charity, and in the shape of charity, because the wages which labor before brought were reduced to a scale at which the laborer could not support himself and his family? He would come to the state of the labor market in the manufacturing districts. There the rate of wages had no more connection with the price of food than with the changes of the moon. There the rate of wages depended entirely on the demand for labor. There the price of food never became a test of the value of labor." The ministry were defeated by 360 to 269, and of course immediately resigned.

The eyes of the country had long been turned on Sir Robert Peel as the proximate minister. Both parties, the Protectionists and Free Traders, were deeply anxious to discover what course he intended to pursue on the question which now chiefly engrossed the interests of both. He was, however, far too wary to give either his friends or his opponents any clue to discover his plans. His invariable reply was that he was not yet formally called in to the patient, whose previous physicians must be dismissed before he would undertake to prescribe. Such indications, however, as could be gathered from his speeches, were not so decided as to reassure his party of his inflexible adherence to their cause. In fact, he, with his usual caution, in his very first address, took care to leave himself a loophole for a future change of conduct. After a few weeks, Parliament adjourned, and the Ministry had time to prepare their measures for the next spring.

The country was now in the midst of that cycle of bad harvests, which seems to be periodic, and to involve some deep meteorological law, of which some indications present themselves, and will, no doubt, be more carefully investigated in future times. It was now the fourth bad harvest in succession. During the autumn, the distress of the country became more severe and wide-spread, and the exertions of the league were proportionably increased. A crowd of lecturers and speakers spread themselves over the country, and numerous demonstrations took place in the midland and western counties. In fact, the whole island was in a commotion. A meeting of delegates was summoned for February in London, to commence a new Parliamentary campaign, their forces being now increased by the powerful assistance of Mr. Cobden.

Parliament was to meet on the 3rd of February.

The Duke of Buckingham had been taken into the cabinet as the especial representative and organ of the Protectionists. On the Monday previous to the commencement of the session, his party were dismayed, alarmed, and perplexed by his sudden resignation, and it soon became known that it was caused by the determination of the cabinet to propose a change in the Corn Laws, of which he did not approve. The free trade party were rather curious than otherwise to hear what the proposal was to be, as they could never expect that Peel and a Tory government would propose what they were determined to have, namely, total repeal.

During the week there was intense excitement. Delegates to the number of nearly six hundred sat in Palace Yard to support their Parliamentary friends. Peel at length produced his plan. In 1815, 80s. had been considered as the remunerating price, it was now supposed to be 56s. or thereabouts. The highest duty was reduced from 38s. 8d. to 20s. When wheat was at 51s., the duty was to be 20s., and to be reduced by a sliding scale to 1s. when the price was 74s. This new scale was accepted with suppressed mutterings by the Protectionists, lest a worse thing should befall them. The number of delegates had now increased to 700, and they scorned such a small concession, and determined to agitate more fiercely than ever.

On the 14th February, Lord John Russell proposed a fixed duty as preferable to a sliding scale, but his amendment was lost by a majority of 349 to 226. Mr. Villiers then brought forward a motion for total repeal, and was supported in a most powerful speech by Mr. Cobden, but the motion was rejected by 393 to 90. Mr. Milnes, with rather an unfortunate prophecy, described Mr. Villiers as the solitary Robinson Crusoe standing on the barren rock of Corn Law Repeal. The public interest had now increased so much that there were 2,881 petitions with 1,540,755 signatures presented to the House. The second reading passed by 284 to 176, and the third by 229 to 90.

Notwithstanding the reduced scale of duties, the public distress increased greatly during the summer, and was general throughout the agricultural as well as the commercial districts. Numerous deputations waited on the principal ministers, detailing the most heartrending scenes of suffering, which, indeed, Sir Robert Peel said was uncontrollable. Parliament, however, was prorogued without any further alteration in the Corn Law; and in August a general insurrection broke out in the manufacturing districts, and for nearly three weeks the public tranquillity was in the utmost danger. The League determined to extend its operations more into the agricultural districts, and for that purpose England was divided into twelve circuits, to each of which a lecturer and agent were appointed. It was said at one meeting of the League that 2,000 lectures had been delivered, and more than 5,000,000 tracts had been printed and circulated. The expenditure had hitherto been £100 per week. It was now determined to raise it to £1,000 a week, and to raise a fund of £50,000 by January, to expend in lectures and tracts during the next year.

On the 30th of January, 1843, the new Free Trade Hall was opened, and a meeting was held

to announce the result of the £50,000 subscription. Independently of the London contributions, it reached £42,000. Numerous other meetings were held in it previously to the commencement of the Parliamentary campaign.

On the 13th February, Lord Howick moved for a committee to inquire into the distress of the country. Mr. Cobden and Sir Robert Peel each waited for the other to speak, like the Earl of Chatham and Sir Richard Strahan. On the fifth night Mr. Cobden spoke, and made as usual a vigorous attack on the supporters of the obnoxious laws. They were quite unable to answer him on general principles. "No man," said the ministerial paper, "answered these charges of Mr. Cobden. No man attempted to answer them." All Sir Robert Peel did was to protest that Huskisson and Adam Smith were against immediate and precipitate repeal, and in favor of cautious progress. The motion was rejected by 306 to 191.

Between December and March, 136 meetings were held in London, and the subscriptions amounted to £22,000, thus making the total far exceed the £50,000, which it had been said the League would find it impossible to raise.

The league now tried to organise an establishment in London, but they were refused the use of Exeter Hall, and it would have been too expensive to build a Free Trade Hall there, as well as in Manchester. They accordingly engaged Drury Lane Theatre, where immense meetings were held every week during Lent, and a weekly newspaper was established, called the League. At these meetings Mr. Cobden took a prominent part. Among many other eminent speakers, each of them admirable in his own way, Mr. Bright began to take the next most conspicuous place to Mr. Cobden.

It may be a curious problem to the future historian, to discover how far Sir Robert Peel had by this time become a convert to Free Trade doctrines. That he was so in theory, however he may have hesitated to carry them out too rapidly, or been afraid of the clamors of his own party if he attempted to abolish what he was especially put into power to maintain,—his speeches would seem to indicate. On the 25th of April, Mr. Ricardo moved that this country ought not to postpone the remission of her import duties with a view to negotiation for reciprocity. This was a great advance in doctrine, because it was long supposed that Free Trade would be a loss to any country without reciprocity. Mr. Ricardo shewed, in an able speech, that the best theoretical and practical economists had proved that a country should adopt liberal commercial principles, even though others did not imitate her example. He supported this view by most convincing facts, shewing the increased prosperity of countries which had adopted this plan. The motion was supported by Mr. Cobden, but lost by 135 to 61.

On the 9th of May, Mr. Villiers brought forward his motion for the appointment of a committee of the whole House to take the Corn Law into its consideration, with a view to its immediate abolition. On the fifth and last night of the debate Mr. Cobden made a powerful speech. The motion was lost by 381 to 125.

The raising of £60,000 by subscription had placed means of greatly increased power in the

hands of the League, and their operations were proportionably extended. During the spring of 1843, constant meetings were held in the country, especially in the agricultural districts. The efforts of Mr. Cobden were truly gigantic. The very strongholds of the Protectionists were selected for attack, and especially on market days, when the farmers were congregated. Among other places, great meetings were held at Uxbridge, Cambridge, Dorset, Lincoln, Rye, Huntingdon, Bedford, Aylesbury, Maidstone, Guildford, Colchester, Winchester, Lewes, and Bedford, and numerous other districts. At these, Messrs. Cobden, Bright, Moore, and others, addressed the farmers for hours, and with scarcely an exception, Free Trade resolutions were passed either unopposed, or by overwhelming majorities, only a few hands being held up for Protection, amid forests of those for Free Trade.

The Parliamentary strength of the Free Traders received a great accession in July, by the return of Mr. Bright for Durham. This gentleman had gradually risen among the numerous eloquent and able speakers of the League to a position only second to Mr. Cobden; and on a vacancy occurring for Durham, it was determined to put him forward. His opponent was Mr. Purvis, a conservative of great influence and property in the neighbourhood. Mr. Bright entered the town a complete stranger to it, and yet carried the election by 488 to 410. After the prorogation, Messrs. Cobden and Bright had a most successful meeting at Canterbury. In fact, the requisitions for the services of these gentlemen to address meetings all over the country poured in such numbers, that no man could comply with them all. During the year 1843, 9,026,000 tracts and stamped publications, weighing upwards of 100 tons, were distributed by the League, and its expenditure was £47,814.

On the 28th September, the campaign for the ensuing season was commenced by a crowded meeting at Covent Garden Theatre. The success of the £50,000 subscription now emboldened them to larger operations, and for the next year it was determined to raise £100,000. But the cause of the League was immensely advanced by the open accession of Mr. Samuel Jones Loyd, who stood at the head of the money power, and who was certainly the last man to join anything which did not promise success. A vacancy in the representation of the City of London also occurred, and the Free Traders succeeded in carrying their candidate, Mr. Pattison, by a majority of 6,535 to 6,334, over Mr. Baring, the Protectionist. Mr. Marshall, of Leeds, one of the greatest manufacturers in the kingdom, also joined it.

The first day of the year brought them further strength. They already counted the chief of the money and manufacturing interests among them. On the 1st of January, 1844, the Marquis of Westminster, the chief of the landowners, sent in his subscription of £500. A vigorous campaign to raise £100,000 now began, and the movement was extended to Scotland. Crowded meetings were held at Glasgow, Edinburgh, Perth, Greenock, Aberdeen, Leith, Haddington, Linlithgow, Lanark, Galashiels, &c., at all of which large contributions were raised. The League now determined to give up petitioning Parliament, and to direct their whole strength to influence the

constituencies. Before the Parliamentary move of the season, six crowded and enthusiastic meetings were held in Covent Garden Theatre. These were continued during the session, and in them a strong sign of the times was seen; among the most able and effective speakers were several tenant farmers and landlords. Lord Fitzwilliam, Lord Ducie, and others, were also earnest supporters of the movement.

On the 12th of March, Mr. Cobden rose to make the move of the session, it was for the appointment of a Committee to enquire into the effects of Protective duties on the interest of the tenant farmers and laborers of the country. His most able speech was full of details of the miserable state of the population in the agricultural districts. The motion was rejected by 224 to 133, but this showed the progress that was being made in the opinion of the Parliament which was elected expressly to maintain protection.

On the 25th of June, Mr. Villiers moved for the total and immediate repeal of the Corn Laws. The motion was rejected by 328 to 124. These repeated divisions showed good progress, for while in 1842, those who voted for total repeal were only 92 and their opponents 395, in 1844 the free traders had risen to 124, and their opponents had fallen to 330, that is, in two years the majority against them had decreased by about 100. No doubt many of these were secretly convinced of the impracticability of maintaining the corn laws, but not having courage to avow a change of opinion adopted the middle course of staying away.

It would be tedious to relate the same course of agitation and speaking during 1844, as in the preceding year. In the autumn of this year the League adopted a still more efficient method of acting upon the constituencies by creating great numbers of 40s. freeholders in hostile districts. They saw that Sir Robert Peel had pointed out the true scene of the conflict—the registration courts. Great pains were taken with the registrations this year, and the accession to the number of the free trade constituencies was considerable.

The harvest of 1844 was very abundant, and consequently the distress of the people was much mitigated, and the Protectionists began to cry out that the League was exhausted, and would speedily expire. They were, however, very grievously mistaken. It was not working so strenuously, it was true, by open agitation, but it was hard at work, and very successfully too, in the more quiet and effectual mode of acquiring voters. The Queen's speech, at the opening of Parliament, noticed the revival of trade, and commerce, and prosperity. In the debate on the address Lord John Russell showed that he had made considerable progress in free trade doctrines, for he said he was convinced that Protection was not the support but the bane of agriculture, and he said that the present period of prosperity was the best time to consider whether the principles of Free Trade should not be still further extended.

On the 13th of March, Mr. Cobden moved for a committee of inquiry of the effects of the Corn Laws on agriculturists. The majority against him now shewed a very remarkable falling off. The numbers were 121 to 213. Thus the majority in three years had fallen from 303 to 92.

In May, a great bazaar was held in Covent Garden Theatre, which was kept open about

three weeks, and produced upwards of £25,000 of receipts.

On the 26th of May, Lord J. Russell brought forward a series of resolutions, that the present state of prosperity was a favorable time to consider what measures might permanently improve the condition of the laboring classes. In his speech he declared himself in favor of a moderate fixed duty of 4s., 5s., or 6s. His motion was rejected by 182 to 104.

On the 10th of June Mr. Villiers rose to make the last of his annual motions, though no one then foresaw the speedy triumph of his cause. In the course of his speech, Sir Robert Peel said,—“I must say, that I think experience has shown that a high price of corn is not necessarily accompanied with a high rate of wages. But I believe it would be impossible to show that the rate of wages varies with the price of corn; and speaking generally of the industrious classes of this country, I think it impossible to demonstrate that it is to their advantage that there should be permanently a high price of corn.” The motion was rejected by 254 to 122, being the smallest number that had voted against it.

It has long been observed that good and bad seasons occur in cycles. After the terrible series of bad seasons which ended in 1843, it was not unnatural to expect a series of plentiful ones, after the good one of 1844. Parliament was prorogued in 1845, amid the expectations of the Protectionists that the crop would be good, and thus alleviate the sufferings of the people, which caused the clamor for the repeal of the Corn Laws. But in the middle of August, alarming symptoms began to appear in the crops of potatoes, upon which the subsistence of so many millions depended. And as the autumn advanced, they became worse and worse, and, especially in Ireland, the progress of the disease was fearful. Heavy rains set in, in September, and continued for about three weeks. In the beginning of October it became apparent that the wheat crop was greatly deficient both in quality and quantity. Prices accordingly began to rise, but not so much as might have been expected, as it was found that the crop of 1844 had been more abundant than any one had supposed.

The well ascertained scarcity reinvigorated the efforts of the Free Traders. From all parts of the country remonstrances came up to the Government, calling upon them to open the ports, and let in food. The *Times* now joined the cry, a sure symptom of its approaching success. On the 28th October, a great meeting was held in the Free Trade Hall at Manchester, into which 8,000 gained admittance, and hundreds were turned away. Mr. Cobden and Mr. Bright called upon the meeting to demand the government to open the ports.

Repeated meetings of the Cabinet were held. It was well known that most alarming reports were pouring in from Ireland, but on the 7th of November, the *Standard*, the ministerial paper, flung defiance in the face of the Free Traders, and declared that the ports should not be opened, as there was abundance of supplies in the country.

Whatever may have been Sir Robert Peel's own opinion at this time, as to the necessity of abolishing the Corn Laws, and however much he may have been hampered with his party connec-

tions in giving effect to it, his opponent was free from any such trammels. Lord John Russell, now seeing that the tide of free trade opinion was fast becoming irresistible, hastened to take advantage of it. The country was surprised by a letter from him, dated Edinburgh, November 22nd, stating that his opinions on the subject of the Corn Laws had undergone a complete change in twenty years. He used to be of opinion that Corn was an exception to the general rules of Political Economy, but he was now convinced of the contrary. He had formerly proposed a moderate fixed duty as a compromise, but he now saw that was untenable. "It is no longer worth while to contend for a fixed duty. In 1841, the Free Trade party would have agreed to a duty of 6s. a quarter on wheat, and after a lapse of years this duty might have been further reduced, and ultimately abolished. But the imposition of any duty at present, without a provision for its extinction within a short period, would but prolong a contest already sufficiently fruitful of animosity and discontent. * * *

"Let us then unite to put an end to a system which has been proved to be the blight of commerce, the bane of agriculture, the source of bitter divisions among classes, the cause of penury, fever, mortality, and crime among the people."

This letter of course was an additional embarrassment to the Government. Repeated meetings of the cabinet gave notice to the outside world of fierce internal struggles. At last, on the 4th of December, the *Times* astounded the world by announcing that the decision of the Cabinet was no longer a secret. Parliament was to be summoned early in January, and the Duke of Wellington in the Lords, and Sir Robert Peel in the Commons, would propose the total repeal of the Corn Laws. The protectionists were frantic. Contradictions in the coarsest language, and printed in the largest type, of the announcement of the *Times*, were reiterated in their papers. The *Times* simply said that time would prove the truth of its assertion. On the 8th of December, the Ministry resigned, and Lord John Russell was commanded to form another on Free Trade principles. Sir Robert Peel promised his individual support, and full information was given to him of the facts in possession of the Government, but not of its proposed measures. However, after twelve days, Lord John Russell found himself unable to form a government, and on the 20th Sir Robert Peel was commanded to re-assume his position.

At length the success of the seven years' labors of the League seemed certain, and it appeared to some that they need give themselves no further trouble. But not so did it appear to its leaders. They determined to trust to no one but themselves for success, and to renew their efforts with greater vigor than ever. On the 23rd December, an immense meeting was held at Manchester, to support the operations of the League. It was then on the motion of Mr. Henry Ashworth, carried with acclamation, to raise a fund of £250,000, and within an hour and a half the subscriptions reached £60,000. Subscriptions rapidly poured in by hundreds and thousands. Meetings were held in nearly every town of any size in the kingdom, and large sums raised in each.

At length on the 22nd of January, the session of Parliament, which was looked to with such deep anxiety, and which was to inaugurate one of the most memorable revolutions in the annals of the world, commenced. The Queen's speech congratulated the country on the prosperous results which had already attended the increased adoption of Free Trade measures, and advised their further extension, especially with reference to the food of the people.

Lord Francis Egerton, the mover of the address in the House of Commons, avowed that his opinion on the Corn Laws had undergone a complete change, and that he had arrived at the conclusion that restrictions permanently applied to the introduction of foreign commodities should no longer be adopted by the Legislature of this country.

Sir Robert Peel explained the cause of the dissolution of the government, and avowed a change of his opinion on the subject of protection, and that the arguments for the maintenance of the Corn Laws were untenable. One of these arguments was, "that the rate of wages varies with the price of provisions, that high prices implied high wages, and that low wages were the concomitants of low prices. * * * I do not believe, after the experience of the last three years, that the rate of wages varies with the price of food. I do not believe that with high prices, wages will necessarily rise in the same ratio. I do not believe that a low price of food necessarily implies a low rate of wages. * * * Who can deny the fact, that during the three years that preceded the month of October last, prices were comparatively low? There was comparative cheapness and plenty, and yet at no period were the wages of labor higher than during that period. If you take the three preceding years, you will find high prices, and coexistent with high prices you will find low wages. Well, then, I have six years; I have, during the first three years, high prices and low wages; I have, during the last three years, low prices and high wages; and I cannot resist the conclusion that wages do not vary with the price of provisions. They do vary with the increase of capital, with the prosperity of the country, with the increased power to employ labor, but there is no immediate relation between wages and provisions—or if there be a relation, it is in an inverse ratio." He then detailed the triumphant success of his Free Trade measures, and that he could continue the conflict in favor of protection no longer. He explained the nature of the fearful reports the government had received, and claimed for himself, as responsible minister of the Crown, to decide what was best for the public safety.

The new financial and commercial measures of the government were announced for the 27th of January. Expectation was wound up to the highest pitch. Prince Albert for the first time attended a sitting of the House. At half past four, upwards of 400 members were in their places. The strangers' seats below the bar were crowded with peers. Sir Robert Peel rose, amidst breathless silence, to explain the ministerial intentions. Well knowing that the engrossing interest of his audience was fixed on corn, and that if they once knew his intentions on that, they would care comparatively little about any other

alterations, he took care to keep that subject to the last. After keeping the House on tenter-hooks for about an hour and a half, he came to his proposition on corn. In this he determined to follow nobody's plan but his own. He refused immediate and total repeal; he refused a fixed duty. He proposed a temporary continuance of a sliding scale, which was finally to expire on the 1st of February, 1849. Until then, he proposed that there should be a sliding scale, commencing with 10s. when the price was 48s., and diminishing to 4s., being a shilling of diminution of duty for every shilling corn rose in price, till 53s., after which it was to be fixed. Mr. Miles proposed that the House should consider the ministerial measures that day six months. The debate raged for twelve nights, on the last of which Mr. Cobden made one of his usual pointed speeches. The amendment was negatived by 337 to 240. On the 1st of March, Mr. Villiers moved as an amendment, that the repeal should be total and immediate, but this was rejected by 265 to 78. On the 27th of March, the second reading was carried by 302 to 214. After some other futile attempts at obstruction, the bill passed the House of Commons on the 15th of May, by 327 to 229. The Bill passed the Lords by a majority of 211 to 164 on the second reading.

Sir Robert Peel had now safely conducted into harbour his great measure. He had conferred the greatest blessing on his country, but his perfidy to his party was unforgivable. Their thirst for vengeance only sought an opportunity to display itself, and that was soon presented. The government had considered it necessary to introduce a coercion act for Ireland. The discussion of this had been dropped till the great corn measure was secure. When that was effected, the Arms Bill was resumed. Sir William Somerville moved that it be adjourned for six months. On the sixth night of the debate the messengers brought the assent of the Lords to the Corn Bill. The furious Protectionists who had voted for the first reading of the Bill, joined the opposition, and the government was defeated by 292 to 219.

On the 29th of June, a memorable scene was enacted. The greatest minister of modern times, having just achieved the pinnacle of his greatness, came to pay the penalty of his former errors, and to bear perpetual witness of the invincible power of truth. If the Liberals could have carried the Repeal of the Corn Laws, it would probably have strengthened their power for many years. But the government of Sir Robert Peel was founded on a false principle, and when the hour of trial came, it was shattered to pieces. On this solemn occasion, when Sir Robert Peel attained his true greatness, and being emancipated from the thralldom of a party, became the pride of the nation, he did not fail to render the acknowledgment that was due.—“I said truly, that in proposing our measures of commercial policy, I had no wish to rob others of the credit justly due to them, I must say with reference to hon. gentlemen opposite, as I say with reference to ourselves, that neither of us is the party which is justly entitled to the credit of them. There has been a combination of parties generally opposed to each other, and that combination, and the influence of government, have led to their ultimate success; but the name which

ought to be associated with the success of those measures is not the name of the noble lord, the organ of the party of which he is the leader, nor is it mine. The name which ought to be, and will be, associated with the success of those measures, is the name of one who, acting I believe, from pure and disinterested motives, has with untiring energy, made appeals to our reason, and has enforced those appeals with an eloquence the more to be admired because it was unaffected and unadorned; the name which ought to be chiefly associated with the success of those measures, is the name of Richard Cobden.”

Lord Palmerston expressed his satisfaction that Sir Robert Peel had given expression to the unanimous sentiments of the country. He had “well said that the merit of this great commercial measure is not due to hon. Members on this, or on that side of the House; it is, on the contrary, due to the talent, the ability, the perseverance, and firmness of my hon. friend, the Member for Stockport. The right honorable baronet has paid a just and deserved compliment to the name of Richard Cobden. When the house and the country look to the highest point in the history of these events, they will see the name of Richard Cobden, a man distinguished by great zeal and enlightenment in advancing a great and important change in our commercial code.” Lord Grey said in the debate on the second reading in the Lords,—“In his opinion, this country owed a debt of gratitude to the leaders of that body (the League), and more especially to Mr. Cobden. He said that to him, to his genius, and to his indefatigable energy and perseverance—not to Sir Robert Peel, not to that party in Parliament with which he had the honor of being connected, but to his hon. friend, Mr. Cobden, were they indebted for the achievement of what he believed to be one of the most important measures with reference to the future welfare of the British people which ever received the sanction of Parliament. To him the country should feel deeply indebted. He had achieved this triumph by means altogether unexceptionable. There had been no appeal to physical force, no threatening displays of great multitudes of persons collected together, [A noble Lord: Because he could not get them.] The noble lord said, ‘because he could not get them.’ He attributed it, however, to a different cause. He believed it was because Mr. Cobden thought, and thought justly, that the proper way of acting on the opinion of Parliament was through the opinion of the nation. All his efforts had been addressed towards converting the opinion of the nation—towards teaching both farmers and manufacturers what the real interests of the community upon this subject were, and considering the time in which this great change of opinion had been attempted, he must say, that his success appeared to him almost miraculous.”

The eyes of the country were now turned upon the League, and great anxiety was felt to know what it would do, now that its ostensible purpose was accomplished. There had been one, and one only, similar association, that for the repeal of the laws against the Roman Catholics. Mr. Cobden was now in the position of O’Connell. But the Catholic Association had set a baneful example. When its purpose was accomplished it should have been dissolved. But such had not

been the case. For many years its leader had kept the country in continuous turmoil and agitation for an insincere object, the Repeal of the Union. O'Connell's agitation, laudable in its commencement, had degenerated for many years into a hollow hypocrisy, with no real object but to collect an annuity for himself. It was feared that the League might follow this example, and having obtained the repeal of the obnoxious laws, might employ its gigantic power in furthering organic changes in the constitution of the country.

But it lost no time in belying these prognostications, and in indicating its constitutional and disinterested character. On the 2nd July, the final meeting of the council of the league took place at Manchester, and was attended by 500 members from all parts of the Country. The chairman, Mr. George Wilson, gave a sketch of its history, and then Mr. Cobden came forward and in a solemn speech moved the suspension of the active operations of the League, which was seconded by Mr. Bright. Subscribers to the £250,000 fund were released from payment after their first instalment, and the executive Council were empowered to resuscitate it if the Protectionist party should make any serious effort to restore protection. Mr. Cobden then detailed the labors of the chief members of the council, Mr. Wilson, the Chairman, had attended 1361 meetings of the council; Mr. Prentice, 1127, Mr. Samuel Lees, 863, Mr. Rawson, 601, Mr. T. Woolley, 485, Mr. W. Bickham, 474, Mr. W. Evans, 444, Mr. Henry Rawson, 258. Mr. Cobden then said that these gentlemen deserved some testimonial for their services. The Chairman, though first offered £500, and then £1,000 a year, had always refused to receive a farthing of remuneration. He proposed that a sum of not less than £10,000 should be presented to him out of the funds of the League. The motion was carried unanimously, with shouts of applause. A committee was also appointed to consider and decide upon a testimonial to the other gentlemen named by Mr. Cobden. It was resolved that a tea and coffee silver service of 240 ounces, should be presented to each. The chairman then said, "As no other gentleman has anything to address to this meeting, it is now my duty to say that the Anti-Corn-Law League stands conditionally dissolved;" an announcement which was received with solemn silence.

Suitable and well deserved rewards had been presented to the chairman, and several of the most active members of the council. But no mention had been made of the two who were best known to the public, Mr. Cobden and Mr. Bright. A spontaneous subscription among the Free Traders of the country presented Mr. Cobden with £75,000, and Mr. Bright with a valuable library.

Such is a short and very meagre sketch, but unfortunately such a one only is compatible with our limits, of this memorable event. There is scarcely anything more remarkable in the history of this country, or in that of any other, than the rise of this movement in a small room over a stable in Manchester, its rapid progress, the constitutionality and the moderation of its course, its marvellous success, and the transcendent influence it is hereafter destined to exercise over the happiness of nations. Although we have of course been obliged to select the one name which, by universal consent,

stood as the most illustrious of the association, with whom to connect it, there were hosts of others, each admirable in his own way, who bore a conspicuous part in its success. But in the general history of a campaign, where all have done nobly, the names of each individual officer cannot be specified. But the three volumes of the *League* newspaper are an imperishable record of their services. Englishmen are in the habit of regarding with just pride the history of the seven years of the Peninsular War, as recorded by Napier. His volumes no doubt are a glorious monument of the bravery, the firmness, the endurance and the perseverance of the people of this country under overwhelming difficulties. But we will venture to say that the history of the seven years' contest of the League is a monument in every way as well deserving our admiration. As a record of fervent, rational, and convincing eloquence enlisted on behalf of a righteous and beneficent cause, it is one of the noblest monuments of the human race.

It has often been mentioned in detraction of the members of the League, that they were fighting for their own selfish interests. It is scarcely worth while to notice such a flimsy charge. The same thing might be said of every one who struggles to free himself from an unjust oppression. If they had sought to impose restraints on others there might have been good ground for such a charge. But they were only determined to free themselves from burdens imposed by others. The interests of the League were the interests of the human race. And therein lay the secret of their success. It was not the mere eloquence of Cobden, nor the treason of Peel, which insured the triumph of Free Trade. As a mere popular agitator O'Connell was far more formidable than Cobden, and yet, when his eloquence was employed on behalf of a hollow cause, it sank beneath general contempt. But the success of the League is a memorable example of the innate power of truth, when allowed the inestimable advantage of free discussion, to win its way against the most powerful prejudices and interests. And every one knows that the removal of protection has been of the greatest possible benefit to agriculture itself. Never at any time has agriculture made such progress as since the repeal of the corn laws. The dismal forebodings of the protectionists have been completely falsified. Instead of capital being withdrawn from farming, it has rapidly poured into it. Nor is it only in a commercial view that Free Trade has been beneficial. There can be little doubt that if the continental revolutions of 1848 had come upon us with the corn laws unrepealed, the 10th of April of that year would have ended in a very different way to what it did.

The superhuman exertions of Mr. Cobden rendered considerable repose necessary after the exciting scenes of the great Corn Law victory. He then made a tour in France, Spain, and Italy. It was more like a triumphal progress than anything else; every great town invited him to a public banquet. At the dissolution of 1847, he was returned spontaneously by the West Riding of Yorkshire, for which he sat till 1857. He then retired from public life for a year or two, and was elected for Rochdale in May, 1859.

Mr. Cobden has recently been engaged on the part of England in negotiating a commercial treaty with France, which will for ever break

down the barriers of its prohibitive policy, and though no doubt not so liberal as might be desired, is yet an immense stride in the direction of Free Trade.

We may perhaps be permitted to remark that the repeal of the Corn Laws in 1846, ought to mark an era, not only in the history of the world, but in the science of Political Economy. It is often supposed that the establishment of Free Trade is the whole end and object of the Science of Political Economy. But that is a very great mistake indeed. It, in fact, only clears the ground and removes obstructions from the erection of the Science.

It would be a very interesting inquiry to determine what the real effect of Adam Smith's work has been in the repeal of the Corn Laws? Is it not within the range of possibility that the League might have existed, and procured the establishment of Free Trade, without Adam Smith having written at all? Is it not possible that the practical evils of the Corn Laws would have forced themselves upon the keen-eyed manufacturers without any teaching? At all events, the repeal of the Corn Laws is the Mausoleum of the *Wealth of Nations*. If the repeal of the Corn Laws be really due to that work, then no doubt Adam Smith will rank as one of the greatest benefactors to the human race. But it is not permitted to any man, however illustrious, to arrest the tide of science. During the heat, the turmoil, and the dust of the battle, to establish a great practical principle, there is little time to attend to the niceties of language, and the exact expressions of science. But now that the great victory is won, and men are enabled to sit down in a quiet, inquiring spirit, the time has come for a complete, calm, and deliberate resurvey of the whole science. The destruction of protection is the first fruits of the struggles of the infant science, and not its termination. The definition of the science which has received the sanction of the highest authorities of modern times is, that it is the science which treats of the *exchangeable relations of quantities*, in which a state of free exchange is presupposed.

Now every one who has studied the science knows perfectly well, that though economists of all schools are thoroughly united in the doctrine of Free Trade, yet that the science itself is in a most lamentable state. There is not a single definition, or general law in it, which is not the subject of the warmest controversies; and there are scarcely any in which any two economists agree. Is this a creditable state of things? Is it inevitable, and inherent in the nature of the thing itself? We answer, certainly not. We say that it is as certainly possible to settle the definitions and axioms of Political Economy, as those of any other science whatever. But it is necessary to set about it in the same way. The immortal discoverers and founders of the different physical sciences have left us sure and certain models to guide us how a science should be formed. There is no one conversant with their early history who can fail to see that their early progress was beset with controversies, presenting the most striking analogies to those which now unhappily divide Economists. And we say that there is no controversy now existing among economists regarding the definitions and axioms of their science, which

cannot be conclusively settled by the analogy of some controversy in some physical science.

The time has now come, then, for the birth of a new science of Political Economy, in which all its definitions and all its axioms shall be successively subjected to the searching and well settled laws of Inductive Logic, and it will then take rank as an exact science.

When this is done it will be found that much of what passes current in books as established truth is mere delusion, and much that is supposed to be paradoxical will be shewn to be undoubted truth.

England, Ireland, and America. London, 1835.

1793 and 1853, in three letters. London, 1853.

How wars are got up in India. London, 1853.

What next, and next? London, 1856.

COCHIN, JEAN DENIS MARIE, born in 1789. An advocate before the Court of Cassation. Died in 1841.

De l'extinction de la mendicité. Paris, 1829.

Manuel des fondateurs et des directeurs des premières écoles de l'enfance connues sous le nom de salles d'asile. Paris, 1845.

COCHRANE, GEORGE.

On the employment of the poor in Great Britain and Ireland. London, 1845.

COCHUT, P. A.

Law, son système et son époque. Paris, 1853.

COCK, S. of Liverpool.

An examination of the Report of the Bullion Committee. London, 1810.

COELLN, G. F. W. FERDINAND DE, born in 1766, in Lippe. In 1806 he was a Judge of the Court of Accounts, when the French occupied Berlin, which office he was obliged to resign. He spent his leisure in writing works on financial questions. He was afterwards recalled and appointed to a place in the office of Prince Hardenberg. He died 13th January, 1820.

Die neue Staatsweisheit. Berlin, 1812.

Materialen für die preussische staatswirtschaftliche Gesetzgebung. Leipzig, 1811.

COESSIN, F. G. A socialist writer, born in 1782, and died in 1842.

Les neuf livres, suivi de la théorie de l'envahissement et d'un aperçu général de la théorie des formes sociales. Paris, 1809.

COFFINIERES, ANT. SIMÉON GABRIEL born in 1786. Doctor of Laws, and an advocate before the Court of Cassation.

De la bourse et des spéculations sur les effets publics. Paris, 1824.

Etudes sur le budget, et spécialement sur l'impôt foncier. Paris, 1848.

COHEN, BERNARD.

Compendium of finance, &c. London, 1822.

Supplement to the 7th edition of Fairman on the Funds. London, 1827.

COHEN, H.

Description générale des monnaies de la République Romaine, communément appelées Médailles Consulaires. Londres, 1857.

COIGNET, FRANÇOIS.

Réforme du crédit et du commerce. Paris, 1849.

COIN.

About mending the coyn. London, 1695.

COINAGE.

Decimal Coinage; a short and easy method of changing the present currency into the decimal system. London, 1854.

Decimal Coinage; what it ought, and what it ought not to be. London, 1854.

COINAGE. Most nations, even the rudest, have felt the advantage of employing some substance to perform the functions of a currency. Under the article **CURRENCY**, we have noticed most of the substances which have been used for this purpose by different nations. A metal, however, of some sort has been found to possess the greatest advantages, and of these, gold, silver, and copper, have been chiefly preferred.

Gold and silver, however, in a perfectly pure state are too soft to be used for this purpose, and it is necessary to mix some other metal with them to harden them, which is called alloy. By a chemical law, whenever two metals are mixed together, the compound is harder than either of them in a pure state.

2. When gold and silver are in the mass, they are called **BULLION**, which, of course, may be of different degrees of fineness. But as the laws of all countries in which bullion is coined into money define the quantity of alloy to be mixed with the pure metal, we shall in this article use the word **Bullion** to mean gold, or silver, in the mass, mixed with such a proportion of alloy as is ordered by law, so as to be fit to be coined.

3. Some nations have used **Bullion** as a circulating medium; but the merchants of those nations were obliged to carry about with them scales and weights to weigh out the bullion on each occasion. This was usual among the Jews. In some countries it is necessary both to weigh and assay the bullion at each operation, which of course is a great impediment to commerce.

Other nations adopt a more convenient practice. They divide the bullion into pieces of a certain definite weight, and affix some public stamp upon it to certify to the public that these pieces are of a certain fixed weight and fineness, and they give them certain names, by which they are commonly known.

These pieces of bullion with a public stamp upon them to certify their weight and fineness, and called by a publicly recognized name, and intended to be used for the purposes of commerce without further examination, are called **COINS**.

4. It may almost appear superfluous to remark that this stamp, or certificate, in no way affects the value of the metal, or the quantity of things it will exchange for. Its only object is to save the trouble of weighing and assaying the bullion in commercial transactions. Nor can the name of the coin in any way affect its value. Values, it is

true, are estimated in the number of these pieces of bullion or coins, but it is perfectly clear that it is necessarily implied in the bargain that these coins contain a certain definite quantity of bullion.

5. Nevertheless, although this seems so perfectly clear, it is a confusion on this point, which is at the root of all the extravagancies of the currency question, which have so long vexed the public ear. They almost all arise from confounding the name, or denomination of a coin, with its value, its name with its purchasing power; and from supposing that if the legislature chose to call a *shilling* a *pound*, that therefore a shilling would have the value of a pound. Any one who will brand on his mind the simple principle, that although the stamp gives the coin currency, it is the weight of bullion alone which gives it value, will be able to steer his course safely through all the shoals and quicksands of monetary controversies.

We shall see a little further on, that calling the reader's attention to these self-evident truths, is not so superfluous as it may appear at present.

6. It is also perfectly evident that if this process of stamping bullion, and so turning it into coin, is done free of all expense, at the will of any one who chooses to present bullion and demand to have it stamped, and also without any delay, the value of the metal as bullion must be exactly the same as the value of the metal as coin.

If, however, a charge is made for the workmanship, or if any tax is levied on changing the metal from one form into the other, or if a delay takes place in doing so, there will be a difference between the value of the metal as bullion and as coin, and this difference will manifestly be the charge for the workmanship, the amount of the tax, and quantity of interest accruing during the period of delay.

These, however, are all fixed, or constant quantities, which may be ascertained, and they form the limits of the variation of the value of the metal in one form, from its value in the other.

7. In the following remarks we shall assume that there is no charge for the workmanship of coining, no tax upon it, and no delay in doing it, no obstruction in short of any sort to changing the metal from one form to another.

If in any particular cases obstructions should occur, of course the necessary corrections must be made throughout the course of the following reasonings.

Upon the assumptions, then, above stated, we have this fundamental principle of the coinage:—

Any quantity of metal in the form of Bullion must be exactly of the same value as the same quantity of metal in the form of coin.

8. Now, as the very purpose of coining is to certify that the pieces of bullion are of a certain definite weight and fineness, it is evident that any fixed quantity of bullion, as a pound weight, must always be divided into a fixed number of coins.

The number of coins into which a given quantity of Bullion is divided, is called the MINT PRICE of that quantity of Bullion.

9. It is perfectly clear, then, that the Mint Price of Bullion is a fixed quantity, it can by no possibility vary, until the same quantity of bullion is coined into a different number of coins.

To alter the Mint Price of Bullion is merely an expression which means an alteration in the standard weight of the coinage.

10. To suppose that the Mint Price of Bullion could vary is manifestly as great an error as to suppose that a hundred-weight of sugar can be a different weight from 112 separate pounds weight of sugar, or that any quantity of wine in a hog-head could be different in quantity from the same quantity of wine in bottles, or that a loaf of bread could alter its weight by being cut up into slices.

11. Now the original measure of value in France, England, and Scotland, was the pound weight of silver bullion. No coin, however, of this actual weight was ever struck. But the pound weight of bullion was divided into 240 coins called pence. Twelve of these pence were called a shilling or solidus, and therefore twenty shillings or solidi, made a pound. These 240 pence actually weighed a pound of bullion.

Now let us denote the pound weight of metal in the form of bullion by the symbol — lb., and the pound weight of metal in the form of coin by the symbol — £. Then we have:—

240 pence = 20 shillings = 1 £ = 1 lb.

Now it is perfectly clear that if the pound weight of bullion were divided into a greater number of pieces than 240, that greater number would still be equal to the pound weight, and if we denoted by the symbol £, 240 pieces, or pence, irrespective of their weight, we should have the 1 lb. equal to 1 £, + the number of pieces above 240.

12. Now this is what has been done in the coinage of all the three countries above mentioned. The sovereigns of these countries were frequently in want of money to pursue their various extravagancies, and as they could not make more money, they adopted the fraudulent and surreptitious plan of cutting the pound weight of bullion into a greater number of pieces, but they still called them by the same name. By this means they gained an illusory augmentation of wealth. As they could not multiply the quantity of the metal, they at various periods *falsified the certificate*. While they still called their coins by the same name, they diminished the quantity of bullion in them, and so coined more than the original number of pence out of a pound weight of bullion.

The consequence of this was very manifest. As 240 pence were still called *a pound* or £, in money, whatever their weight was, and as more than 240 pence were coined out of a pound of bullion, the £, or pound of money, began to vary from the lb., or pound of bullion. This falsification of the certificate increased till the time of Elizabeth, when instead of 240 pence, or 20 shillings, being coined out of the pound weight of bullion, no less than 62 shillings, or 744 pence, were coined out of it. Then we have manifestly

744 pence = 62 shillings = £3 2s = 1 lb.

Now as there are 12 ounces in one pound weight of bullion, it is evident that each ounce of bullion was coined into 62 pence, and hence, as the value of bullion is measured by the ounce, the Mint Price of silver was said to be 5s. 2d. the ounce.

13. Afterwards gold was used as a measure of value, concurrently with silver, and gold pieces were struck and made to pass current as nearly as could be done at the value corresponding to the market values of gold and silver. Thus there was for a considerable time a double standard.

14. The celebrated Locke, however, had pointed out (Locke), that a double standard was improper, and that there ought to be only one standard in a country. Sir Isaac Newton also pointed out in 1717, (Newton) that the coins were then improperly rated according to the market value of gold and silver, and that the effect of this would necessarily be to drive silver out of circulation. In consequence of his representations, the value of the gold coin was reduced, but not to a sufficient extent, and the consequence which he predicted took place. In consequence of gold, in coin, being still overrated in comparison with its relative market value to silver, merchants during the course of the last century adopted the universal custom of paying their bills in gold coin in preference to silver, and thus gold became gradually to be considered as *the* measure of value in England.

15. In 1816, this custom was adopted as the law, and gold was declared to be the only legal measure of value, and the pound, the legal tender or measure of value, became the equivalent in gold of 20s. in silver.

The pound weight of gold bullion was ordered to be cut into 46 pieces of the value of 20s. or £1 each, with a piece over, equal to 14-20ths and 6-12ths of 1-20th, or the Mint Price of 1 lb. of gold was fixed at £46 14s. 6d.

But as the value of gold is estimated by the ounce, the Mint Price of gold is fixed at £3 17s. 10½d. per ounce, and as long as the coins are ordered to be coined of the same weight, the Mint Price cannot vary.

16. Until recent times, when more attention has been paid to the state of the coinage, these coins might circulate for a considerable time in a country, and lose much of their weight, without losing their value. People were so accustomed to attach a certain value to the sight of a particular coin, that unless they were money dealers they did not stop to inquire too curiously whether it was exactly of the proper weight or not. In fact, when a coinage has been some time in use, few people know what the legal weights of the coins are. Many, for instance, do not associate the idea of a pound with any particular weight of bullion, and thus, in exchange for commodities and services, coins may pass at their nominal value for a considerable time after they have lost much of their weight. Thus Shakespeare says, (*Cymbeline*, Act v., Sc. iv.)

"Tween man and man, they weigh not every stamp,
Though light, take pieces for the figure's sake."

When coin has been some time in circulation, it must necessarily lose much of its weight from the wear and tear of circulation, even if it be not subjected to any bad practices, such as clipping, which used to proceed to a great extent in this country formerly, as will be shewn a little further on. So late as 1816, when the last great reformation of the coinage took place in England, the greater part of the metallic circulating medium was nothing but a thin wafer of silver, from which all traces of an impression had long since vanished, and it was reduced to scarcely more than half its legal weight.

17. Coins might circulate in a country for some time after they had lost some of their weight, without any perceptible change in their value with respect to ordinary commerce. But when they

were given in exchange for bullion the case would be different. As the value of bullion is measured weight for weight with the coins, it is clear that if the coins have lost their weight, a greater number of them must be given to purchase any amount of bullion than if they are of full weight. Thus if the Mint Price of silver bullion be 5s. 2d. per ounce, or if that be the quantity of coin into which an ounce of silver bullion is cut, then if the coins have lost their proper weight from any cause, it is clear that more than 5s. 2d. must be given to purchase an ounce of bullion. It may perhaps require 6s. or even more, to buy an ounce of bullion.

18. Now the quantity of coin at its full legal weight, which is equal to a given weight of bullion, is called its *MINT PRICE*, but the quantity of the current coin which is equal to it in weight is called the *MARKET PRICE*; and as, if the coins are diminished in weight, more of them must be given than if they are of full weight, the *Market Price* will apparently be higher than the *Mint Price*, and this is called a *rise of the Market Price above the Mint Price*.

This expression, however, has given rise to much error. The plain meaning of it clearly is, that six of the current coins are only equal to what 5s. 2d. ought to be, which merely means, that the current coinage is deficient by 1-6th of its legal weight. Thus, in reality, we see that it is perfectly clear that the rise of the market price is due to the *DEPRECIATION* of the coinage.

Hence we obtain this fundamental law of the coinage.—*When the Market Price of Bullion rises above the Mint Price, the excess is the proof and the measure of the depreciation of the coinage.*

19. In fact, this apparent rise of the market price is due to just the same cause as has made the Mint Price of silver bullion apparently rise from £1 in the days of William the Conqueror, to £3 2s. in the present day. It is merely that the same quantity of bullion is cut into a greater number of pieces, and consequently each piece must be proportionably diminished in weight, or depreciated.

20. The market price of bullion could never fall below the mint price, unless there was more bullion in the coins than there ought to be, and of course in such a case, the difference of the market price below the mint price, would be the proof and the measure of the excess of the coin, above their legal weight.

If the coinage of a country fall into a degraded state from long wear and tear, and a new coinage of full weight be issued, and allowed to circulate along with it, one of two effects must inevitably follow. Either those persons who have commodities to sell will make a difference in the nominal prices of articles, according as they are paid in the full weighted, or the degraded coin, that is, the degraded coin will be at a discount as compared to the heavy coin; or if there be a law to prevent this, and to make both pass at the same value, bullion dealers will immediately collect all the full weighted coins they can, and melt them down into bullion, or export them; so that the new coinage will quickly disappear from circulation.

21. If persons in selling their goods are paid in light coin, as they wish to secure a certain weight of bullion in exchange for them, they would of

course require a larger number of the light pieces than of the heavy ones, so that prices would apparently rise if paid in light money. In such a state of things the prices of goods are, in a certain sense, fictitious—a number of light pieces are presumed to have the same value as the same number of heavy ones. The weight of bullion given in exchange for commodities is expressed in a greater number of figures than it ought to be, and if the law prevents any difference being made between heavy and light pieces, the same number of heavy pieces will purchase no more. This is as great an anomaly in commerce as it would be to say in arithmetic that three were equal to four. But the consequence is very plain. If four pieces of coin will only purchase as many commodities as three ought to do, no one will turn bullion into coin at so great a disadvantage. On the contrary, as bullion would diminish so much in value, it would be sent to other countries, where it would purchase a greater amount of commodities. Moreover, as every one would try to pay his debts in the cheapest medium, or at the least expense to himself, it is evident that he would always try to pay them in the worst coins in circulation, and he would either hoard the good coins, or send them to foreign countries.

22. These considerations lead us to a fundamental and universal law in Political Economy, which has been found to be true in all countries and ages—*That bad money drives out good money from circulation.* Or as it is expressed in an anonymous pamphlet, *A reply to the Defence of the Bank, setting forth the unreasonableness of their slow payments.* London, 1696. (*BANKING WORKS*, p. 154):—

“*When two sorts of coin are current in the same nation of like value by denomination, but not intrinsically, that which has the least value will be current, and the other as much as possible will be hoarded,*” or exported, we may add.

The fact of the disappearance of good coin in the presence of bad was noticed by Aristophanes, (*ARISTOPHANES*) and was long the puzzle of financiers and statesmen, who continued to issue good coin from the Mint, and were greatly perplexed by its immediate disappearance; till Sir Thomas Gresham explained the cause (*GRESHAM*), whence we have called it Gresham's Law of the Currency.

23. The very same principle applies, and is the real objection to a double standard, or a coinage in which two metals, such as gold and silver, are equally adopted as legal tender to an unlimited amount. The relative value of the coins may be accurately fixed at any one time according to the market values of gold and silver, but as the market values of these metals vary, like any other commodities, the relative Mint values of the coins are sure to get out of adjustment with the relative market values of the metals, and when that is the case the one which is *underrated* is sure to disappear from circulation, and the other remain. It was this cause that made gold become the usual medium of payments in England, and silver the usual medium of payments in France during the last century, as may be seen further on in this article.

24. It is also from the same principle that a paper currency is invariably found to expel a metallic currency of the same denomination from

circulation. And to show the generality of the principle, we have seen (*BANKING IN AMERICA*, § 391) that when a depreciated paper currency had driven coin out of circulation, and a still more depreciated paper currency was issued, the more depreciated drove out the less depreciated from circulation. (*CURRENCY, PAPER*).

25. It may perhaps be worth while to advert to an error, which is by no means unfrequent. Some writers contend against *fixing* the price of gold, as it is called. It is now acknowledged by every one that it is a great economical error to attempt to fix the price of any articles. Some writers contend that it is an equal error to *fix* the price of gold. But those who do so overlook a very important consideration. The word "price," except in the single instance "Mint Price," always denotes the quantity of one article which is used as a measure which is given for another article of a *different* nature. Thus we say that the price of a bushel of corn is 6s., when the silver, the substance of which shillings are composed, is of a different nature from corn. But in the expression *Mint Price* of bullion, it always means the value of bullion expressed in coin of the same metal. Thus the *Mint Price* of gold bullion means its price expressed in *gold* coin, and the *Mint Price* of silver bullion means its price expressed in *silver* coin.

26. These considerations shew that so long as the coins retain their full legal weight, the *Market Price* of bullion can by no possibility vary from its *Mint Price*. If the law requires an ounce of gold to be coined into £3 17s. 10½d., so long as the coins contain their proper weight, it can make no difference in the *Market Price* whether gold becomes as plentiful as iron, or as scarce as diamonds. For the money always continues of the same weight, whatever be the abundance or the scarcity of bullion. The value of gold may vary with respect to other things; it may purchase more or less bread, or meat, or clothes, or anything else at one time than another, but it is absolutely impossible that its value in bullion can differ from its value in coin. To suppose that it could, would be as irrational as to suppose that because bread became very abundant or very scarce, a loaf of bread could differ from itself in weight when cut up into slices, or a cask of wine differ from itself when drawn off into bottles.

27. As, however, gold and silver vary in value with respect to each other, and this variation may proceed, nominally at least, either from a diminution in value of one metal (*DIMINUTION IN VALUE*), or from a depreciation of the coinage (*DEPRECIATION*), we are enabled to devise a test by which to decide to which of these circumstances it is due. Thus in the reign of William III., guineas rose to 28s. and 30s., and silver bullion rose at the same time to 7s. an ounce, one party stontly contended that this was due to the scarcity of silver. Now this argument was absurd on the face of it, because if silver had been extremely scarce as compared to gold, it is perfectly clear that silver would have risen as compared to gold and not fallen. That is, guineas would have sold for less than 22s. and not more. From the figures given above, this argument was manifestly self-contradictory, because as compared with gold, silver had apparently *fallen* in

value, and as compared with silver money, it had apparently *risen* in value.

28. Now it is quite clear that a *diminution in value* of the coin cannot be followed by any difference between the *Market* and the *Mint Price* of bullion. By the meaning of the words "Mint Price," however plentiful, or however scarce, gold may be, an ounce of it in coin must always be equal in value to an ounce of it in bullion. On the other hand, a *depreciation* of the coinage must inevitably be attended by a rise in the *Market Price* above the *Mint Price* of bullion, because, however plentiful or scarce gold is, three-quarters of an ounce of it in coin can never be equal in value to one ounce of it in bullion. The case may be shortly stated thus:—Guineas may rise to 26s. in silver, either from a *depreciation* of the silver coinage, or from a *diminution in value* of silver. What is the test? It is to be found in the *Market Price* of silver. If the silver coinage is debased, the *Market Price* of silver will rise above the *Mint Price*; if it is diminished in value, it will not.

29. The preceding considerations contain, we believe, what may be called the theory of the coinage. They, however, only relate to the coinage of one country. The relation between the coinages of two or more countries is called the *Exchange* between them. The theory of the *Exchanges* is, however, entirely founded on the principles explained above. It will be found under the title *EXCHANGE*. The same principles also contain the theory of the *Paper Currency*, to which we must also refer.

30. In concluding this part, we need only observe that its principles are, of course, subject to great modifications when obstacles are interposed to the conversion of bullion into coin. And that in several instances the value of bullion has differed immensely from the same quantity in coin. In the Eastern Archipelago, for instance, Spanish pillar dollars had long an almost exclusive currency. The people had such confidence in them, and were so accustomed to their use, that they would take nothing but them, and as, of course, they were only coined in Spain, when the supply of them was deficient in the East, bullion fell to an immense discount as compared with the dollars. The very same thing happened in the Australian Colonies soon after the gold discoveries, before Mints were established there. Sovereigns could only be coined in England, and there was no means of converting the gold into currency without sending it to England to be coined. Gold, consequently, fell to an immense discount as compared with sovereigns. After some time, however, Mints were erected in several of the colonies, and a plan was adopted of issuing notes in exchange for bullion, and this difference was immediately rectified.

We may also observe that the preceding remarks only apply to the variations of the value of the coinage and bullion *inter se*. They in no way refer to the variations in value between the precious metals and commodities in general; which are altogether beyond the scope of this article.

On the Coinages of several countries.

31. The history of the coinage is an essential part of the Political Economy of any country. Moreover, the invention of coinage has exercised

such an important influence over the prosperity of mankind, and the various tamperings with, and alterations of, its quality and weight, have produced so much misery among nations, that an economist will naturally take some interest in the history of its invention, and its use in different countries.

32. When nations discontinued the practice of direct barter, and adopted the precious metals as a measure of value, the expedient of cutting the metal into pieces of definite weight and fineness seems so obvious, that we should naturally expect that coining was invented by those nations which first adopted the precious metals as money.

Strange as it may appear, however, it is certain that this was not the case. Silver and gold were used as measures of value for ages before coining was thought of; and there is every reason to believe that coining was invented by a people who, up to the time of inventing it, did not use silver and gold as money, and coining was practised by them for centuries before it was introduced among nations who had used the precious metals as money for ages.

33. The earliest instance we have recorded of silver being used as money in commerce, is the passage in Genesis xxiii., 15, 16, where it is said that Abraham bought the field of Macphelah from Ephron:—"And Abraham hearkened unto Ephron, and Abraham weighed to Ephron the silver which he had named in the audience of the sons of Heth, four hundred shekels of silver, current money with the merchant." It need scarcely be remarked, that the word *money* here has been inserted by the translators, and may lead some to think that it means coins like our money. This, however, would be an error. The silver was probably formed into small ingots or rings, and weighed out, and we know that the Jewish merchants, as was the custom all over the East, carried scales and weights about with them for the purpose of weighing out the price of commodities. The Jews, up to the time of the captivity, had no coined money at all.

34. In Genesis xxxiii., 19, it is said in our translation of the Bible, that Jacob purchased a field from the children of Hamor for a hundred pieces of money. In the Septuagint, however, the word is translated "lamb," which is also given as a marginal reading in many editions of the Bible. And that is the usual meaning of the Hebrew word *Kesitah*, which is used in the original. The true meaning of this word, says Goguet, *Origin des Arts*, i. 290, has greatly perplexed the interpreters. Almost all, says he, are of opinion that Moses means a sum of money here. But was it coined with the figure of a lamb upon it? The greater number think that it means money stamped with the figure of a lamb. Others again think that it really meant lambs. But as, in Acts vii. 16, it is expressly said that the price was a sum of money, the latter opinion seems inadmissible.

Others again, perplexed with the word *Kesitah*, which occurs only in two other places of Scripture, in Joshua xxiv. 32, referring also to this transaction, and in Job xlii. 11, where it says every man gave him a piece of money, or "lamb," and unwilling to believe that coined money existed in those times, think that it means a piece of money of the value of a lamb.

35. Such are the various opinions of commentators on passages which are of some interest in the history of the coinage, and which have never, hitherto, received a satisfactory explanation, so far as we are aware. We think, however, that the recent discoveries of Sir Gardiner Wilkinson in Egypt, and Mr. Layard in Assyria, have thrown quite a new light on the matter, and shewn that none of the commentators have hit on the right meaning.

36. In Wilkinson's *Ancient Egyptians*, edit. 1836, vol. ii. p. 11, and also in his *Popular Account of the Ancient Egyptians*, 1854, vol. ii. p. 149, and also in Mr. Layard's *Discoveries in the Ruins of Nineveh and Babylon*, 1853. p. 600, we find pictures copied, which shew Egyptians and Assyrians weighing out the precious metals in ring-ingots, with weights in the form of lambs, antelopes, bulls' heads, lions, and other animals. Specimens of these kinds of weights, made of stone, in the form of a duck, have actually been discovered in Nineveh, and are now in the British Museum. By an inscription on one of them, in cuneiform characters, which Dr. Hincks has deciphered, it appears that it weighed thirty mana, or half a Babylonian talent, and being weighed at the mint, was found to weigh 40 lbs. 4 oz. 4 dwts. 4 grns. Several bronze lions have been found which were also weights.

37. We think there can be little reasonable doubt but that we have here the clue to the interpretation of these passages, and that the quantity of money was weighed out with *weights in the form of a lamb*, that, of course, being some well known and definite amount, though how much it was has not been ascertained. In Genesis xx. 16; xxxvii. 28; xlv. 22, where pieces of silver are mentioned, they were, no doubt, ring-ingots of bullion, as we see depicted in Wilkinson and Layard. In the latter two passages, where our version reads "silver," the Septuagint has "gold."

38. The first mention we have of coined money in Scripture is in 1 Chron., xxix. 7; Ezra, ii. 69; Nehem., vii. 70, 71, 72, where our version speaks of *drams*, which is a mis-translation for Darics, which were famous Persian gold coins, which are mentioned afterwards. These books were written after the captivity, when the Jews used the coins current in Persia.

39. The term used by the Jews to denote buying always involved the idea of weighing. Thus in Isaiah, lv. 2, where we read in our version:—"Wherefore do ye spend money for that which is not bread," the word in the original means to weigh. And indeed, the essential idea of value always means weight; the quantity of one thing weighed against another. So in *Henry viii.*, Act v. sc. 1, Cranmer says:—

"Will triumph o'er my person, which I weigh not:—
i.e., value not.

The first native coinage of the Jews was struck in the time of the Maccabean princes, when Antiochus permitted them to have money of their own. 1 Macc., xv. 16.

40. The Assyrians are said by Mr. Layard not to have used any coins. Nor had the Egyptians any coinage of their own, but they seem to have been the first to use gold as a currency, which they did before silver, which Sir G. Wilkinson says they called "white gold." The

precious metals were made up in the form of rings, and were weighed out in all transactions, with weights of different forms; and this clumsy method of weighing out the price of every commodity continued so late as the time of the Ptolemies, and was only gradually superseded by the use of Grecian coins. The use of the ring money continues to the present day in Sennaar and the neighbouring countries.

An attempt to introduce a silver coinage was made by Aryandes, the Persian governor of Egypt, under Cambyzes and Darius, but it did not succeed. Of this something more is said below.

41. Julius Pollux, ix. 83, says that coining was attributed to various persons, to Pheidon of Argos by some, to Lycus and Erichthonius of Athens by others; by Xenophanes to the Lydians, and by Aglosthenes to the Naxians. It is curious, however, that he does not quote a well known passage in Herodotus, which is commonly supposed to assign it to the Lydians. Plutarch also says in his life of Theseus, § 25:—"He coined money too, and stamped it with the figure of an ox, either in remembrance of the Marathonian bull, or of the general of Minos, or to admonish the citizens to follow agriculture. And from this coin, it is said, that the expression, worth 100 oxen, or ten oxen, is derived." We quote this passage, because many ancient writers affirmed that there was a coin called a *βοῦς* in very ancient times, which was alluded to in the passages of Homer mentioned below, and even some modern economists have held the same notion. But we have little doubt that this coinage is as mythical as Theseus himself, and those who believe in one may believe in the other. We might just as well accept it as an historical fact that Ulysses offered Silenus coin, because Euripides says, *Cyclops*, 160:—

Πρὸς τῷδε μέντοι καὶ νόμισμα δόσομεν.

It has, indeed been disputed whether money, or coin, was in use in Homer's day, some contending that coins were meant in the passages quoted below. But all critics of authority are now, we believe, agreed that there is no allusion to money either in Homer or Hesiod. We ourselves, having gone over the *Iliad* for the express purpose, are satisfied that there is not the faintest allusion to anything like money in it.

42. The practice of barter is very clearly described in *Iliad*, vii. 468; when the vessels from Lemnos came to the camp of the Greeks freighted with wine, they purchased it with copper and iron, leather, oxen, and slaves.

Νῆες δ' ἐκ Λήμνου παρέσταν, οἶνον ἀγοῦσαι

Ἐθεν δρ' οἰνίζοντο κάρη κομώντες Ἀχαιοί,

Ἄλλοι μὲν χαλκῷ, ἄλλοι δ' αἰθωνι σιδήρῳ,

Ἄλλοι δὲ ῥινοῖς, ἄλλοι δ' αὐτῇσι βόεσσιν,

Ἄλλοι δ' ἀνδραπόδεσι.

Not only do we find no allusion to money in Homer, but the words significative of wealth give no preference to the precious metals above other things; on the contrary, they are comparatively seldom mentioned. The Homeric words expressive of wealth most frequently refer to cattle, or horses, or agriculture. Thus we have *πολύρρην*, *πολυβούτης*, *πολύϊππος*, *φιλοκτέανος*,

πολυκάμων, *ἄφνειος*, *πολυκτῆμων*, *πολυλήϊος*. In *Iliad* vii. 180, and xi. 46, are almost the only instances in which gold is especially alluded to as wealth, *πολυχρύσοιο Μυκῆνης*. When the Greek and Trojan leaders send spies to discover the plans of the enemy, neither of them promises money as a reward. Nestor, *Iliad* x. 215, promises to the successful spy a black ewe with its young, a matchless gift; and Hector, x. 305, promises on his side a chariot and a pair of horses.

43. The Greeks however, in that early age sometimes referred to cattle as a measure of value. Thus in *Iliad* ii. 448, Minerva's shield, the *Ægis*, had 100 tassels, each of the value of 100 oxen:—

Τῆς ἑκατὸν θύσανοι παγχρύσοιοι ἡερέθονται
Πάντες ἐνπλεκέες, ἑκατόμβιος δὲ ἕκαστος.

Homer, *Iliad* vi. 234, laughs at the folly of Glaucus, who exchanged his golden armour for the copper armour of Diomedes:—

Ἐνθ' αὖτε Γλαῦκω Κρονίδης φρένας ἐξέλετο Ζεὺς
Ὅς πρὸς Τυδείδῃν Διομήδεα τεύχε' ἄμειβε,
Χρῦσα χαλκείων, ἑκατόμβοι' ἐννεαβόων.

So in *Iliad* xxiii. 703, Achilles offers as a prize to the conqueror in the funeral games in honor of Patroclus, a large tripod, which the Greeks valued among themselves at twelve oxen, and to the loser a female slave, which they valued at four oxen:—

Τῷ μὲν νικήσαντι μέγαν τρίποδ' ἱμπυριβήτην
Τὸν δὲ δυωδεκάβοιον ἐνὶ σφίσι τῶν Ἀχαιοί·
Ἄνδρ' δὲ νικηθέντι γυναῖκ' ἐς μέσσον ἔθηκε,
Πολλὰ δ' ἐπίστατο ἔργα, τῶν δὲ ἑτεσπαράβοιον.

So also in *Iliad* xxiii. 885, Achilles stakes a spear and a caldron worth an ox:—

Καδ' δὲ λέβητ' ἄπυρον βοδὸς ἄξιον ἀνθεμόεντα
Θῆκ' ἐς ἀγῶνα φέρων.

Now Julius Pollux says that there was a coinage in early times in Attica bearing the figure of an ox, and he says that some suppose that these coins are meant here, and not oxen; an opinion, however, which he does not say he adopts, as some suppose he does. J. B. Say, however, adopts that opinion from M. Garnier, and others have done the same.

44. Every critic of authority, however, has rejected this opinion, and when we examine the internal probability of the thing, we can, we think, come to no other conclusion. Athens, at the time of the Homeric poems, was a state of no great importance. And how was it likely that the coinage of so small a place should be the recognised measure of value throughout the Greek states of Asia Minor?

Moreover, if we come to examine the values of the different articles mentioned above, by such a measure, they will at once be seen to be ridiculously small. The quantity of silver in the *βοῦς*, supposing it to have been an early name for the Attic drachma, did not exceed that of a modern shilling. Now the purpose of the tassels in Minerva's shield was to strike terror into her enemies. It is ludicrous to suppose that these terrible tassels should only have had as much metal in them as there is in five sovereigns.

Again, it is ludicrous to suppose that the golden armour of Glaucus should only have been worth five sovereigns, or even the copper armour of Diomedes worth nine shillings. It is also absurd to suppose that the tripod proposed as a prize by Achilles should only have been worth twelve shillings, or a skilful female slave worth only four shillings; or that Achilles should stake a caldron worth only a shilling. Directly we look at it in this view, it seems to us that the values assigned to the articles are absurd, but as soon as we consider them as really oxen, they become something rational.

45. This, however, in no way disproves the assertion of Pollux, that there was an early coinage at Athens stamped with the figure of an ox, and called a *βοῦς*, as we shall see below, that it was quite common for cities to stamp their coinage with the devices of animals of different sorts, and not unfrequently the coin itself was called by the name of the device it bore.

46. The Homeric poems were probably written, according to the best authorities, about the beginning of the ninth century, B.C. At that period, therefore, we have seen that there was no money of any sort in Greece, nor even were gold and silver used as measures of value. But soon after this, though how long we cannot say, a currency of a curious nature came into use throughout Greece. They used large iron and copper nails, called *ὀβελίσκοι*, of such a size that six of them made a handful, and when silver was substituted, the standard silver coin of the Greeks derived its name from the fact that it was of the value of a handful of these nails. They are mentioned by Plutarch in his life of Lysander, § 17. He says that Lysander sent a quantity of gold and silver money to Sparta, by Gylippus, who stole a part of it, and this being discovered, made the chief Spartans demand that all the gold and silver should be sent away as a foreign nuisance, and that they should use nothing but their own national coin, which was of iron, and tempered with vinegar, so as to render it useless for any other purpose. And he says—"Probably all the money in former times was of this kind, for they used iron skewers as money, and some used copper ones. Whence it comes that even now a quantity of small coin is called *obolus*, and a *drachma* is six oboli, because the hand can grasp that number." We shall see below that Pheidon, who introduced a silver coinage into Greece, collected a number of these skewers, and laid them up in the Temple of Juno at Argos, as a curiosity.

47. Although Pollux says that the invention of coining was by different writers attributed to four different persons, or peoples, the claimants for this honour are practically but two—Pheidon of Argos, and the Lydians. The majority of ancient authorities attribute it to Pheidon, king of Argos. Thus the historian, Ephorus, is quoted in two places by Strabo. In VIII. 6. he says,

"Εφορος ἐν Αἰγίνῃ ἀργυρον πρῶτον κοπῆναι φησιν ὑπὸ Φεῖδωνος" Ἐμπόρειον γὰρ γενέσθαι παρὰ τὴν λυκρῶτητα τῆς χώρας τῶν ἀνθρώπων θαλασσοπορευόντων ἐμπορικῶς."

"Ephorus says that silver was first coined in Ægina by Pheidon. For the island became a commercial port, as the inhabitants were obliged

to betake themselves to maritime commerce, in consequence of the sterility of the land." Also in VIII. 3 :—

"Καὶ μέτρα ἐξέτυρε τὰ Φεῖδωνεῖα καλούμενα, καὶ σταθμούς, καὶ νόμισμα κεχαραγμένον τὸ τε ἄλλο καὶ τὸ ἀργυροῦν."

"And he invented the measures, called the Pheidonian ones, and weights, and coined money of silver, and other kinds."

The *Etymologicum Magnum*, under the title 'ὀβελίσκος, says—

"Πάντων δὲ πρῶτος Φεῖδων Ἀργεῖος νόμισμα ἔκοψεν ἐν Αἰγίνῃ, καὶ δοὺς τὸ νόμισμα καὶ ἀναλάβων τοὺς ὀβελίσκους, ἀνέθηκε τῇ ἐν Ἀργεὶ Ἡρᾷ."

"And Pheidon of Argos was the first who ever coined money, which he did at Ægina, and he both put money into circulation, and withdrew the skewers, and laid them up in the temple of Juno at Argos."

And in accordance with this, Ælian says, *Var. Hist. XII. 10. De Æginetia* :—

"Καὶ πρῶτοι νόμισμα ἔκοψαντο, καὶ ἐξ αὐτῶν ἐκλήθη νόμισμα Αἰγιναιῶν."

"And they were the first who coined money, which, too, is from them called Æginæan money."

So also the Parian Marble says, *Clinton's Fast. Hellen. I. 247* :—

"Ἀφ' οὗ Φ . . . δων ὁ Ἀργεῖος ἐδήμευσ . . . ε . . . νεσκεῖασι, καὶ νόμισμα ἀργυροῦν ἐν Αἰγίνῃ ἐποίησεν."

All these authorities, therefore, are perfectly clear that Pheidon of Argos was the first who coined money, which he did at Ægina; and the reason why he set up his mint at Ægina, is very plainly given by Ephorus, as quoted above, because it was a great commercial port, and, therefore, it was most wanted there for the convenience of commerce.

48. The period at which Pheidon lived has been a subject of much dispute. For while some carry it back so far as 865, B.C., others bring it down to 783-744, B.C. The question is fully discussed in the first Appendix to the first Volume of Mr. Clinton's *Fasti Hellenici*; and in his opinion, the latter is the true date. And in this decision all scholars now acquiesce. We may, therefore, place the introduction of coined money by Pheidon in the first half of the 8th century, B.C. And there is a very probable reason why he should have invented it. At this period he was by far the most powerful sovereign in Greece. Argos was the metropolis not only of the Peloponnesian Dorians, but also of the Asiatic Dorian colonies. The Dorians carried on a very large commerce with the Phœnicians, and it was from them that Pheidon adopted his system of weights. From time immemorial there had been two standard weights used in Assyria, the Babylonian and the Euboic talent. The Dorians traded with the Phœnicians, and adopted the Babylonian talent. The Ionic Greeks adopted the Euboic talent. As Ægina was the great commercial depôt, this talent was afterwards called the Æginæan talent. The Assyrians at this period had no coinage. And Pheidon introducing the system of Babylonian weights into Greece,

seems to have invented a system of measures of his own, which were called after him, and also a silver coinage, to supersede the clumsy iron and copper nails, or skewers, then used as currency. The Spartans, however, who at this period were a subordinate, but independent tribe of Dorians, steadily refused the new invention of a silver coinage, probably from jealousy, and adhered to the old iron skewers. They retained this iron money to a comparatively recent period. (CURRENCY).

49. The account of the invention of coinage just given, seems to be natural and probable. There is, however, a passage in Herodotus which seems to contradict it. He says, I. 94, speaking of the Lydians,

“Πρώτοι δὲ ἀνθρώπων, τῶν ἡμεῖς ἴδμεν, νόμισμα χρυσοῦ καὶ ἀργύρου κοψάμενοι ἐχρήσαντο.”

“And they were the first men, we know of, who coined and used gold and silver money.” This has always been supposed to mean that the Lydians were the first who invented coining, and that they used a double standard, as it is called, of gold coins and silver coins. If this be the case, the authority of Herodotus is against the claim of Pheidon, and we have observed above that though it is somewhat singular that Julius Pollux does not mention this passage, he says that Xenophanes of Colophon assigns the invention to them.

50. It occurs to us, however, that there may be a means of reconciling the apparent contradiction between Herodotus, and the writers already cited as attributing it to Pheidon. It seems to us that the passage will bear a different construction from that invariably put upon it. For in Greek when καὶ is used to connect two qualities, it means that the thing spoken of partakes of both these qualities at once. Thus, as the month began in the middle of a day, the last day of a month was called ἔνη καὶ νέα the new-and-old day, because it belonged partly to one month, and partly to another. So there are many other examples. Now if we apply this principle to the passage in question, it would mean not that the Lydians were the first to coin gold money and silver money in separate coins, but that they were the first who struck a coinage of a mixture of gold and silver.

51. Now we find that this rendering of the passage, which is the genuine Greek idiom, exactly tallies with the fact. The Lydians had a coinage of ἤλεκτρον, or electrum, which is a mixture of gold and silver, in different proportions, but usually three parts of gold to one part of silver. And this material was generally adopted throughout the western states of Asia Minor for their coins. (*Encyclo. Brit. Art. Numismatics.*) Several of these coins are in the British Museum.

52. Such is the solution of this apparent contradiction, which we offer to our readers for them to consider its probability. We offer it with the greatest diffidence, because it seems to us that if it be the true solution, it is so simple and obvious that it could hardly have escaped the notice of the many able and acute critics and writers, both on Herodotus and Numismatics.

53. We have now to notice another very celebrated coin of antiquity, which has also given rise to much controversy—the Persian Darics.

We have said above that they are the coins meant by the word *drams* in Chronicles and Ezra.

From the passage in Herodotus IV. 166, quoted below, the greater number of authors have supposed that the Daric was first coined by Darius Hystaspes, who reigned 521-484, B.C., and some even have supposed that he was the first who introduced a coinage into Persia.

Harpocration, however, says that the name was derived from an earlier king, and several modern writers have considered that it is derived from a Persian word *Dara*, signifying a king in general. (*Smith's Dict. of Gk. and Rom. Ant. Art. Daricus. Kitto's Bibl. Cyclo. Art. Adarconim.*)

Mr. Grote, (*Hist. of Greece. III. 319.*) affirms that this Darius was the first to introduce a coinage of gold and silver at all into Persia. And Heeren and Baehr consider that Darius did not issue these Darics as coins, but only as medals in commemoration of himself, and that their use as money grew up gradually afterwards.

54. But the plain meaning of the words seems to us to be repugnant to such a construction. Herodotus says, IV. 166 :—

“Ἰδὼν Δαρεῖον ἐπιθυμῶντα μνημοσύνην ἑωυτοῦ λιπέσθαι, τοῦτο τὸ μὴ ἄλλω εἰη βασιλεῖ καταργασμένον, ἐμμέτερο τούτου.” * Δαρεῖος μὲν γὰρ χρυσὸν καθαρῶτατον ἀπεψήσας ἐς τὸ δυνατότατον, νόμισμα ἐκόψατο.”

Which Mr. Rawlinson translates, “Aware by his own eyesight, that Darius wished to leave a memorial of himself, such as no king had ever left before, Aryandes resolved to follow his example. . . . Darius had refined gold to the last perfection of purity, in order to have coins struck of it.”

55. Now, it is quite clear from the very expression that Darius meant them to be used as money, νόμισμα. But the questions arise :—

1. What was the nature of this proceeding of Darius?
2. Was this the first coinage of the Persian Empire?
3. What was the thing Darius considered so peculiarly illustrious, as to rank above what any other king had done?
4. Do the Darics derive their name from this Darius?

Now taken by themselves the words are not decisive one way or the other, as to whether this was the first coinage in Persia, or not. We must, therefore, search for any other passages which may guide us. And it happens that in III. 96, and 130, we have two, which throw some light upon the subject.

56. In III. 96, Herodotus says that the tribute gold and silver was sent up to Babylon, and melted, and laid by in pots, and whenever any money is wanted he (the king) coins as much as is necessary each time.

“Ἐπεὰν δὲ δεῖσθῃ χρημάτων, κατακόπτει τοσοῦτο ὅσον ἂν ἐκάστοτε δεῖται.”

Now Mr. Grote (*History of Greece. IV. 320*), translates κατακόπτει “cuts off,” thereby implying that it was used in bullion. But Mr. Rawlinson translates it “coins,” which is manifestly right, for it is one of the technical words

for coining; as Cyrus says in Xenophon, *Hellenics* I. 5. 3., if money failed him—

“Καὶ τὸν θρόνον κατακόψειν ἐφ’ οὗ ἐκάθητο.”

“He would coin the very throne on which he sat.”

57. Again in III. 130, when Democedes had cured the king of the sprain in his ankle, he was sent to receive a reward from the king's wives, who each took a saucer full of gold coins—στάρηρας—from a chest of gold, and gave them to him, and his servant even grew rich by picking up those which fell out. Now this was in the beginning of Darius's reign, when he was still a young man, as we see in c. 134, Atossa reproaches him for want of enterprise, unbecoming a young man. From these passages, it is quite clear that coining and coined money were in use in Persia, in the beginning of Darius's reign.

58. Now it is true that Herodotus does not mention the period in Darius's reign, when he reformed the coinage, but there seems every probability that it was done after the period alluded to in the last mentioned passages, as it is mentioned long after them in the narrative. A reformation of the coinage is not a thing likely to occur to a young man, it is much more likely to be thought of by a man of mature age.

59. But we have also traces of a coinage in Persia earlier than that of Darius. A passage in Plutarch, if authentic, goes to shew that there was gold money in Persia in the time of Cyrus the Elder. He says, *De Mulier. Virtut.* p. 246, that when Cyrus's soldiers misbehaved in battle on one occasion, the Persian women of a town shamed them into fighting, and they won the victory. In commemoration of this, he made a law that whenever the king entered the country every woman should be presented with a piece of *gold money*. Nor was this a mere obscure tradition, but a well recognized law, and was one reason, he says, why the kings so seldom visited their native country. He also says that the first thing that Alexander did when he entered the country was to comply with this law. (*Life of Alexander* § 69.) Hence we have a well established law relating to money dating for a considerable time before Darius.

Such evidence as we have then, goes, we think, to prove that there was a gold coinage in Persia before Darius Hystaspes.

60. Besides, in what did his doing a thing more glorious than any other king had done consist? Surely not in simply striking a gold coinage, because there were abundance of gold coins in the Greek states of Asia Minor long before the time of Darius. Hence it was no novelty at all. But the remarkable thing manifestly was the extraordinary purity of the metal. The staters of the Asiatic states were of very different weights, and some were much alloyed with silver. Now Darius evidently placed his glory in coining them of absolute purity, or as nearly so as the state of the art in his day would permit. And in this Aryandes imitated him, and Herodotus says that the Aryandic silver was the purest in existence in his day. (IV. 166).

61. And we think the narrative of Herodotus confirms this view of the case. For while in the earlier passage, III. 130, he simply speaks of Staters, in VII. 28, he says that Pythias of

Celænae was worth among other things 3,993,000 of *Daric* Staters, evidently alluding to the reformed Staters of Darius. And after this period the Persian Staters were always called *Daric* Staters. So Thucydides VIII. 28, speaks of *Daric* Staters, and Diodorus Siculus says that Alexander found in the treasury immense quantities of gold and silver bullion, and 9,000 talents of gold, χαράκτῃρα Δαρεικὸν ἔχοντα, of the coinage of Darius. So Julius Pollux, IX, 84, speaks of Cræsean, Philippic, and *Daric* Staters. And he also says, III. 87, speaking of the most highly esteemed gold:—

“Εὐδόκιμος δὲ ὁ Γύγαδας χρυσὸς καὶ οἱ Κροισεῖοι στέρηρες,” and manifestly alluding to the reformation of the coinage by Darius, “καὶ οἱ Δαρεικοὶ ἀπὸ Δαρείου, ὡς ἔπει’ ἐκείνου ἀκριβοθέστες εἰς κάθαρσιν τοῦ χρυσοῦ.” And that very pure silver was called Aryandic silver. He also says, IX. 84, that there was a Persian coin called Danaces, which was perhaps the one superseded by the *Daric*.

62. It seems then that there was gold coin in Persia for a considerable time before Darius, though how long it is impossible to say, and that they were more or less impure. That Darius resolved to signalise himself by issuing a coinage of as great purity as possible, and that it was these reformed coins which were called *Daric* Staters, just as there were Cræsean Staters and Philippic Staters, and Alexandrian Staters, (*Pollux*, IX. 59.) The assertion of Harpocration, which is copied word for word by Suidas, seems to us to be of no weight at all, especially as he cites no authority for it. And in reply to the assertion of modern writers that the word *Darics* is derived from *Dara*, a Persian word for a king, Mr. Rawlinson says that there is no such word at all in old Persian. The common opinion then seems to us to be correct, that these *Darics* were called after Darius Hystaspes, just as many coins in ancient, as well as in modern times, have been called after their issuers. We have already mentioned some ancient ones, in modern times we have the louis d'or and the napoleon.

63. We learn from Herodotus III. 96, that there were two standard weights in use in the Assyrian Empire, the Babylonian talent for silver, and the Euboic talent for gold. The Dorian Greeks who traded with Phœnicia, introduced the Babylonian weight, which when adopted in Greece was called the *Æginæan* standard. The Ionic Greeks adopted the other standard, which was known by the name of the Euboic, a name probably derived from the people who adopted it, like as the *Æginæan* was named from those who used it. The Euboic standard was adopted at Athens, and the standard coin of this system had the figure of an ox stamped upon it, whence it was called a *βοῦς*, as stated by Pollux and others. The existence of this coin has been doubted, but Montesquieu says (*Esprit des Loix*, XXII. 2.) that he saw one in the collection of the Earl of Pembroke, and it is stated (*Smith's Dict. of Gr. and Rom. Ant. Art. Nummus*, 2nd edit.) that other specimens exist. The relation between the *Æginæan*, or Babylonian talent, and the Euboic talent, was that of 72 to 60, or 6 to 5.

64. Solon effected a remarkable change in the Athenian currency. The whole state was thrown

into confusion and misery by the indebtedness of the people to the monied classes. Their lands were mortgaged, and multitudes who had no land to pledge, were sold into hopeless slavery. By universal consent Solon was appointed sole arbitrator to redress this state of things. The measures he adopted are related in Plutarch, one of them was of a very singular nature. Plutarch says that he made the mina, which contained 73 drachmæ, pass for 100. The meaning of this, however, obviously is that out of the same quantity of silver as there was previously in 73 drachmæ, he coined 100. And he changed the stamp; for whereas before his time it was the figure of an ox, and the coin was called βούς, he stamped his new drachmæ on the obverse with the head of Pallas, and on the reverse with an owl, the favorite bird of Pallas, hence the coin was called κόρη, the Virgin, from the head of Pallas, and sometimes γλαυξ, the owl. The reason why Solon adopted such a strange relation as that between 73 to 100 long puzzled the critics, and some supposed that he meant to reduce the coinage by one-fourth, but by clumsy workmanship, an error was made, by which the reduction was 27 per cent., instead of 25 per cent. But the opinion now adopted by the best scholars is that Solon intended to bring the new Attic Currency into the definite ratio of 3 to 5 with the Æginæan standard, which was in general use throughout the rest of Greece. It seems, however, that Plutarch was not quite accurate in saying that Solon reduced the standard in the ratio of 73 to 100. The investigations of modern scholars have shewn that it is in reality 72 to 100, and we have as the relation between the three systems of Greek currency the following definite ratios:—

Æginæan	:	Euhoic	=	6	:	5
Æginæan	:	Solonian	=	5	:	3
Euhoic	:	Solonian	=	138½	:	100
			=	100	:	72
			=	25	:	18

(*Smith's Dict.: Art. Pondera.*)

65. By Solon's legislation, every creditor received from his debtor as many pieces of money as were due to him, but their weight was reduced by 28 per cent. One would have thought that the nature of the operation was plain enough. It was, in reality, nothing but a bankruptcy, necessitated by the miserable state of the debtors it is true, but still a compromise or bankruptcy. No one could have imagined, it would appear, that when a man received only 72 per cent. of the quantity of silver due to him, that it was, in reality, a payment in full of his claims. Nevertheless, Plutarch's comment on this transaction is most extraordinary. He says:—

“Ὅστι' ἀριθμῷ μὲν ἴσον, δυνάμει δ' ἑλαττον ἀποδιδόντων, ὥφελ' εἶσθαι μὲν τοὺς ἐκτίνοντας μέγала, μηδὲν δὲ βλάπτεσθαι τοὺς κομιζομένους.”

“So that as they paid the same by tale, but less by weight, it was a great relief to those who had to pay large sums, but yet no loss to those who had to receive it!” Here we have the first germ of that astonishing paradox, that it is the *name* and the *stamp* on the coin which give it its *value*, and that the quantity of metal in it is of no consequence. It is this palpable absurdity which

is at the root of almost all the monetary controversies which have distracted the world in recent times. It is precisely the same paradox which deluded the Government, and the House of Commons, and the Bank of England, in 1811, when it was held that a bank note which was called a pound was of the same value when it would exchange for 20s. as when it would for 14s. When the House of Commons voted that a pound note and 1s. were equal to a pound note and 7s., and when they contracted enormous debts in pounds worth 14s., which their unfortunate descendants have to pay in pounds of 20s. (Μυστήρ). This, as we have said above, is the great source of confusion which has given rise to almost all monetary controversies,—confusing the *name* of the coin with its *value*.

66. One other remarkable thing may also be mentioned. Although the exigencies of the case undoubtedly were met on this occasion by a general bankruptcy, and the supposition that one party could be greatly benefited, and the other not injured, cannot possibly be received, yet the operation was never repeated. In Roman history, as we know, the commons were repeatedly plunged into general distress by insolvency, and there were repeated depreciations of the coinage, but this instance of Solon's was the only one in Greek history. As Mr. Grote observes, (*Hist. of Greece, III. 141.*) the Grecian democracy never demanded an agrarian law, or a release from debts, and more than that, the Dicasts, or jurors, who formed the judicial body called the Heliaia, were obliged to take a solemn oath to repudiate all proposals for an abrogation of debts, or a redivision of lands, and many Greek cities fixed a curse upon all such propositions.

67. The Attic drachma as remodelled by Solon, weighed 66.5 grains, of which one-sixtieth part was alloy, which gives 65.4 grains of pure metal. A modern shilling contains 80.7 grains of silver. Hence the drachma was worth 9.72 pence. After the time of Alexander, it was slightly diminished to 63 grains. The Athenians coined pieces of two, three, and four drachmæ, as well as obols, half, and quarter obols, and pieces of two, three, and four obols.

The Persian Daric Stater was of the weight of the Attic didrachma, and of the value of 20 drachmæ.

The mina contained 100 drachmæ, and was therefore equal to £4 1s. 3d., and the talent contained 60 minæ, and was therefore equal to £243 15s.

The Attic standard was used in most of the maritime and commercial states, at Corinth, Acanthus, Cyrene, the northern states of Greece, except Bœotia, and Macedonia, and Sicily.

68. The Æginæan standard was used generally throughout the Peloponnesus, except Corinth, and in Bœotia. The drachma weighed 96 grains, with one thirty-second part of alloy. It, therefore, contained 93 grains of silver, and was worth 1s. 1d. 3-2 farthings. The largest coin of this standard was the didrachma.

69. The Athenians had no gold coinage of their own before the Macedonian Empire. During the distress caused by the Peloponnesian war, they issued on one occasion, B.C. 406, a debased gold coinage (Αἰσχροπράγες), but this was soon withdrawn. Gold was coined in large quantities by

Philip of Macedon, and thus found its way into Greece, and several Greek cities then issued a gold coinage of their own. But the staters of Cyzicus, Phocæa, and the other states of Asia Minor, had considerable currency in Greece. Among the earliest of those known to them, there seem to have been the staters of Cræsus, king of Lydia, which were made of electrum, or a mixture of gold and silver.

70. In Italy, there are obscure traditions of a currency of leather, shells, and iron. But it may be considered as certain, that the Etrurians had a bronze or copper currency of some sort, long before the period of authentic history. Pliny in XXXIV. 1., says that Numa was the first who stamped bronze, or copper money; but at XXXIII. 13., he says that it was Servius Tullius, and Cæsiiodorus mentions the same report. Timæus, according to Pliny, says that before the latter king, the Romans used copper in the mass, as money. He stamped it with the figure of an ox, and hence, says Pliny, XVIII. 3., it was called *pecunia*. Plutarch, (*Life of Publicola*, and in *Quest. Rom.* p. 274.) and Varro (*De Re Rusticâ*, II. 1., and *De Vita Pop. Rom.* I.), say that the earliest Roman coinage was stamped with the figure of cattle; and Columella (*Præf. to VI.*), and also Pliny, XVIII. 3., say that the word *pecunia* comes from the figure stamped on the early coinage. This has recently been called in question, but we cannot see on what sufficient ground, as the names of many coins in ancient times were derived from the figures stamped on them. The early Roman coins were not stamped, but cast in a mould.

71. The unit of value was the As, or the pound weight of copper. But what the Roman pound was has never been exactly settled. The difficulty arises from the difference between the actually existing weights themselves, as well as from the differences in the weights of certain coins which are said to have been certain definite parts of the pound. The calculations made by several eminent archæologists bring out results varying from about 5,053 grains to upwards of 5,200 grains. The most recent authorities, however, seem to incline to the former of these figures. If this be the case, the Roman pound may be considered as something less than twelve ounces avoirdupois weight.

72. It is quite uncertain how long the Roman currency maintained its full weight of a pound. Pliny, XXXIII. 13., says that in the first Punic war, when the Republic could not pay its debts, it reduced the As from one pound to two ounces; thus he says it gained five parts in six, and paid its debts. This was in reality nothing but a bankruptcy. Five years before the first Punic war, in the 485th year of the city, and 269 B.C., silver was coined for the first time. The Denarius was coined to be equal in value to ten Asses, the Quinarus to five, and the Sestertius to two and a-half. This coin afterwards became the unit of value.

In the second Punic war, when Hannibal was pressing hard upon Marcus Minucius, Quintus Fabius Maximus, the dictator, proclaimed a second national bankruptcy, and the As was reduced to one ounce. The denarius, however, was raised to 16 asses, the quinarus to eight, and the sestertius to four. Thus, Pliny says again, the Republic

gained one-half. In the year 191, B.C., the As was still further reduced by the Papirian law to half an ounce. In the year 90, B.C., Lucius Drusus debased the silver currency by an alloy of one-eighth part of copper. The proper weight of the Denarius was 84 to the pound.

73. Such is Pliny's account of the depreciation of the Roman Coinage; we may remark that though he says the state gained by defrauding its creditors, he does not agree with Plutarch's astounding paradox under similar circumstances; he does not say that the creditors suffered no loss. It has also been observed that this account cannot be correct, because Asses have been found of all degrees of depreciation from twelve ounces downwards. Modern Roman historians suppose, therefore, that the depreciation of the currency must have commenced at a very early period, and there must have been many before the one in the first Punic war, mentioned by Pliny. The point has given rise to much discussion, but as no satisfactory result has been arrived at, we need not enlarge upon it.

74. Gold was first coined 62 years after silver; that is, in the 13th year of the second Punic war, or 207, B.C. The lowest gold coin was the *scrupulum*, which was worth twenty sestertii. There were also gold coins of two, three, and four scrupula. Afterwards gold denarii were coined of forty to the pound, which Nero reduced to forty-five. If the aureus was the fortieth part of the pound, it is calculated that it ought to weigh 130.1 grains; but none have been found of that weight. Their average weight is 120 grains, of which one three hundredth part was alloy, so that there remain 119.6 grains of pure metal. A modern sovereign contains 113.12 grains of pure gold. Hence, as compared to the sovereign, the aureus of the republic was worth £1 1s. 1½d. very nearly.

75. Under Alexander Severus, the aureus was called *solidus*, hence by corruption the French *sous*.

76. The Roman unit of value was the sestertius, or the fourth part of the denarius. During the latter part of the Commonwealth, it was about 2d. 5 farthings. A sum of 1,000 sesterties was called a sestertium, and large sums were estimated in *sestertia*. The sestertium was, up to the time of Augustus, equal to about £8 17s. 1d. After Augustus, the sestertius was reduced to 1d., 3.5 farthings, and the sestertium to £7 16s. 3d.

77. The most remarkable circumstance, however, about the Roman coinage is, that every great family had the right of having denarii coined with their own device, so long as the officers of the mint certified that they were of the proper weight and fineness. Abundance of these family denarii exist. *Eckhel. V. 53.*

78. Constantine the Great fixed the aureus at 72 to the pound; and at this standard they remained until the capture of Constantinople by the Crusaders in 1204. The gold coinage of the Byzantine Empire was always guarded with the greatest care, except by a few monarchs, such as Nicephorus II. (963-976 A.D.), Nicephorus III. (1067-1088 A.D.), and Alexius I. (1081-1118 A.D.), who issued very debased coinages. But these frauds created such a public outcry, that they were obliged to be abandoned. These coins, called Bezants, acquired great cele-

brity, and obtained a great circulation in Western Europe, and were commonly current in England in the days of the Anglo-Saxon Monarchy, and for long after the Conquest.

On the Coinage of Britain.

79. The text of Cæsar in which he speaks of the money he found in Britain, is so hopelessly corrupt, that it is not possible to lay much stress upon it. It is, therefore, quite uncertain whether there was gold and silver money in the island at the time of his invasion. The ring money of the Egyptians and Assyrians seems to have spread all over the Celtic nations of the West, and the Scandinavians of the North. When the barbarians invaded Italy and Greece, they carried home with them a knowledge of their coinage and letters, and these gradually spread over the west. The probability seems to be that, at the time of Cæsar's invasion of Britain, the solid discs of the Greek and Roman money were gradually superseding the ring ingots of iron and copper, which the natives originally used. Coins are in existence, which are supposed to be contemporary with the invasion of Cæsar, especially one bearing the legend "*Sego*," which is supposed to denote *Segonax*, one of the four kings of Kent, who were ordered by Cassivellaunus to attack Cæsar. (*De Bell. Gall. V. 22.*) After this period, they are by no means scarce, and Cuneolin, Shakespeare's Cymbeline, who was brought up at Rome under Augustus, took home with him Roman artists to improve his coinage. Many specimens of it exist, bearing his name, as well as the first letters of Camulodunum, or Colchester, the chief town of his kingdom.

80. On the conquest of Britain under Clandius, the native money was abolished, and the Roman substituted, as was usual with the Romans in all their conquests. This continued for 400 years, until the arrival of the Anglo-Saxons, in the fifth century.

81. The Anglo-Saxons introduced a totally new system of money, both in weight, form, and type, to the Roman. But it appears from the specimens that exist, that though each of the kings of the Saxon Octarchy, as it should be called, coined money independently, that they were all of the same weight and fineness, and were, in fact, very nearly the same as the famous Anglo-Saxon penny. They were called *Sceatte*, and some of those of the kings of Kent remain, which were evidently coined before their conversion to Christianity, in the 6th century.

82. When the Island was united under the sway of a single sovereign, the mints were regulated by laws framed by the Wittenagemote, or great council of the nation.

83. The Saxon weight differed considerably from the Roman. It is supposed, with every probability, that they derived it from the Lower Empire. On the Continent it was known by the name of the Cologne pound, and when introduced into this country, it was afterwards called the Pound Tower, because the mint was established in the Tower. We have already seen examples, similar to this, of foreign weights being introduced into countries, and receiving new names from some place in the country. Thus, the two standard weights of the Assyrians, when introduced into Greece, were called the *Æginaean*, and the *Euhoic talents*, because they were first intro-

duced into Greece by the people of *Ægina*, and *Eubœa*. Thus the Greek pound, when adopted in Germany, became the Cologne pound, and when further extended to Britain, became the Pound Tower. Some, however, suppose that the Greeks and the Saxons both derived the weight from a common origin, which they suspect to be Egypt, the great fountain of science.

84. The Pound Tower continued to be the weight used for money till the 18th Henry VIII., who substituted the Pound Troy, which was used in France. The Pound Tower weighed 5,400 grains, the Pound Troy weighs 5,760 grains, being three-fourths of an ounce heavier.

85. The *Sceatte* were the earliest Anglo-Saxon money. There appear to have been coins of different weights of this name, but whether designedly so, or from mere rudeness of workmanship, is not determined. In the time of Athelstan (924-940 A.D.), 80,000 *sceattes* were declared equal to 120 pounds. An equal number of pennies make 125 pounds; so that the *sceatta* was one twenty-fifth part less than the penny.

86. After some time the penny superseded the *sceatta*. The etymology of this word is much disputed. It was the 240th part of the pound weight of silver, and for a thousand years was the standard coin of this country, until successive kings so diminished and debased it, that it has fallen to its present low estate. The high value of silver in the days of Athelstan may be judged of, when we find that an ox was sold for thirty pennies, and a sheep for five pennies, or one shilling. Half-pennies and farthings were also coined, but even these were too great for general use, when the value of silver was so high. Half-farthings were, therefore, coined in brass, and called *stycas*.

87. These were the only coins struck by the Anglo-Saxons. Some antiquaries maintained they had a gold coinage, but this opinion is now abandoned.

88. They had, however, names for specific sums of money, or money of account, as it is usually called. There was the *mancus*, which many supposed to be an actual coin, but the best opinion seems to be that it was only a sum of thirty pennies. The *mark* was a Danish mode of computation, and was probably introduced in the time of Alfred; it contained 100 pennies, but this was afterwards increased to 160, or thirteen shillings and four-pence, which was its value so long as it continued to be a legal fine.

89. The next species of money of account was the *Scill*, or *Scilling*, the name of which appears as early as the seventh century. The origin of this word is also much disputed, some even making it come from the Jewish *Shekel*. Some have also supposed that it was an actual coin, but this opinion is not now considered right. The *scilling* originally denoted five pennies, but afterwards it was reduced to four. William I. settled the English shilling at four-pence, and the Norman at twelve pence.

90. There was also the *Thrimsa* of three pennies, and the *Ora*, which was in some cases twenty pennies, and in others only sixteen. All rents to the crown were paid in the *ora* of twenty pennies; rents due to private persons seem to have been paid in the *ora* of sixteen pennies.

91. Up to the time of Athelstan (924-940 A.D.), the Archbishops, and many of the Bishops, exercised, or usurped, the right of having a distinct coinage. That monarch, however, in a great council, to which all the noble and wise men were summoned, ordained that there should be but one money throughout the kingdom. But while all subjects were forbidden to mint independently, many of them received grants from the crown to mint on its behalf, and there were in early times instances of royal, episcopal, and abbatial mints, all existing at the same time in the same town. Thus, when the Synod abolished the right of private coining, it was ordained that there should be seven moneyers in Canterbury,—four for the king, two for the bishop, and one for the abbot. And this was the case at several other places, and the privilege was not wholly abolished till the middle of the 16th century.

92. It may be mentioned that the quality of the bullion of the Anglo-Saxon money was 11 ounces 2 dwts. fine, and 18 dwts. alloy. This was called the "Old right standard of England." For a comparatively short period it was debased by some of our kings, but it was soon restored, and is that in use at the present day, as it has been proved by experience to confer the greatest amount of durability on the metal.

On the Coinage of England since the Conquest.

93. The Duke of Normandy acquired, or in the language of the law *conquered*, the Crown of England in 1066. As he claimed the crown as the lawful heir of the Confessor, he took care to make the change as little felt as he could. No change was made in the coinage, either in weight, fineness, or denomination. The names of about 238 of his moneyers have been preserved, and he had mints in nearly every town in the kingdom of any size. William established the Saxon shilling at five pennies, and the Norman at twelve, thus making it nominally correspond with the *solidus*, the French money of account into which the pound was divided, and which has been corrupted into the modern *sou*.

94. About this time it is generally supposed that the term *Sterling* began to be applied to English money, by which it was distinguished on the Continent, as it still is. The etymologies given for this word are so numerous and conflicting, that it would only be waste of time to enumerate them. This word *Sterling* was applied not only to the quality of the coin, but was also specifically appropriated as a name of the English penny, or standard coin.

95. No change was made in the Coinage by William II., but a heavy tax called *moneyage* is supposed by some to have been instituted by him. This tax was levied every three years, and was a fine paid that the money should not be altered. Henry I. (1100), found it so unpopular that he thought it politic to abolish it. Severe punishments were enacted against those on whom counterfeit coins were found, and all falsifiers of money were condemned to lose a hand, without redemption. This severe punishment was, however, ineffectual, and in 1106, the loss of sight and other mutilations were added. Nevertheless in three years the coin was so debased, that a recoinage became necessary. Notwithstanding the penalties denounced, the coinage continued so debased, that in 1123 it was thought advisable to call in

the aid of the church, and at a council held at Rome, that year, under Calixtus II., several ancient statutes were revived, which excommunicated all makers or passers of false money. Ecclesiastical censures, however, were as unavailing as temporal laws, and in 1125, it was determined to make a terrible example of them. The Bishop of Salisbury was ordered to summon all the moneyers in England to meet at Winchester by Christmas day. They came to the number of 94, and all but three were found guilty, and horribly mutilated according to the law, and then expelled from the country. To the three honest ones was committed the charge of recoinage all the money in England.

96. Stephen (1135) being soon immersed in civil war, and the treasures which had been accumulated by Henry I. being spent in the support of his armies, he had recourse to the expedient of debasing the coinage. Fortresses and feudal castles sprung up everywhere during these troubles, and each had its mint, so that in a short time the country was deluged with base coin, which contained scarcely one tenth part of silver. At length, in 1153, Stephen concluded a treaty at Wallingford, by which he recognized Henry as his successor, and it was agreed that these castles to the number of 1,115 should be destroyed, and their mints suppressed; and that the coin should be restored to its just standard and made uniform throughout the kingdom. This he was unwilling or unable to do.

97. Henry II. (1154) immediately carried into effect the treaty of Wallingford which Stephen had left unfulfilled. The castles were destroyed and their mints suppressed. In 1156, a new coinage was issued, and several of the moneyers were mutilated according to law. In 1180, it was again found necessary to have a recoinage. It is quite uncertain whether Richard I. coined money during his short reign. If he did, no specimens of it are known to exist.

98. On Richard's death, 1199, his brother John seized upon the throne. In 1205, proclamation was made that no one after the feast of St. Hilary in the next year, should receive or keep clipped money. All such money found in anyone's possession should be seized, bored through, and forfeited to the king. An assize was ordered for the examination of the money. All that wanted more than 2s. 6d. in the pound was to be declared illegal, and withdrawn from circulation. In order to test the weight of the coin, legal weights were delivered at the Mint to all applicants. If any of the pennies issued after Christmas, should be found clipped in anyone's possession, they were to be bored through, and the owner of them was to be treated as a thief. It was declared that the penny should be made of the just standard, and if any should be found clipped, the person who did so, should forfeit his goods to the king. Thus we see that in this reign, the utmost attention was paid to the weight of the coin.

99. Henry III. (1216) succeeded at the age of nine. It is supposed that in the beginning of his reign, round half-pence and farthings were first coined. For up to this time no coins had been coined smaller than the penny, which was much too large for general use. It had, therefore, been usual to break it in halves and quarters, being stamped with the figure of a cross, to serve as

small change. In 1227, a parliament was held at London, in which it was enacted that the English groat should be coined at a certain weight, with the king's image on one side, and on the other, a cross as large as the groat, to prevent clipping. In 1229, the payment of the papal tithes was enforced with great severity, and the people were obliged to borrow money of the Cahorsini, who then came into England for the first time, along with Stephen, the Pope's nuncio. It was the remission of this tribute which, we have every reason to believe, gave rise to the invention of Bills of Exchange, (*BILL OF EXCHANGE; CIBRARIO*) which is often, without any authority, attributed to the Jews. In 1247, the money was so clipped, during the troubles of the kingdom, that the whole of the letters were cut away, and even the inner circle was not entire. This had been done chiefly by the merchants of the countries nearest England, especially the Flemings. The evil was now so great, that a general council of all the nobles, lay and ecclesiastical, was held by the king at Oxford, and it was debated whether it was not expedient to alter the form or the fineness of the money. It was decided that as the matter, and not the form of the money, had been debased, it would be better to depreciate the standard, as had repeatedly been done in France and other countries. In 1248, the coins were so clipped and debased, that neither the English nor their foreign customers could endure it any longer. Proclamations were made in all cities, boroughs, fairs, and markets, throughout the kingdom, that no one should pass or receive money not of lawful weight, or not round. Repeated proclamations of this nature were issued, and all found to be ineffectual. At last a new coinage was rendered indispensable on account of the public distress. But the process of the new coinage was almost as burdensome as the bad money. In consequence of the old money being cried down, wheat rose to 20s. a quarter. Very few exchanges for giving new money instead of old were established, not only did the people only receive an equal weight of new money for their old, but a tax of 13d. in the pound was laid on for exchanging it, so that they received scarcely 20s. instead of 30s. The coinage, however, was of the proper weight and fineness.

100. In 1257, the 41st of his reign, he issued a gold coinage, the first in this kingdom. It was also called a penny, and weighed two sterlings, or silver pennies, and was ordered to be current for 20 pence. Thus it bore exactly the same relation to the silver penny, that the Persian Darics did to the Attic drachma. They were declared to be legal tender in London at that rate, but on the citizens remonstrating, a new proclamation was issued, permitting the citizens to take them or not as they pleased. In 1265, the value of the gold penny was raised to 24 pence. This coin was also termed a ryal, and was the first of the kind in Europe. It, however, soon disappeared from circulation, and in a few years ceased to be coined.

101. In 1265, it is said by some authorities that the statute of weights and measures was passed, by which the penny sterling was ordered to be of the weight of 32 grains of wheat, round and dry, and taken from the middle of the ear; the oz. to weigh 20 pence, and the pound 12 ounces.

102. The coinage had never been so debased and corrupted as during the troubled years of Henry III. It was clipped down to half its weight, prices rose immensely, and foreign merchants refused to trade. Immense quantities of base coin were imported from foreign countries, to the great distress of the people. One of the first things Edward I. (1272) found it necessary to attend to, was the state of the coinage. In 1275, severe punishments were inflicted upon persons accused of clipping and debasing the money. In 1278, upon pretence of having diminished the coin, all the Jews in England were seized on the same day, their property was confiscated to the crown, and multitudes of them hanged. In 1279, a proclamation was issued forbidding the currency of clipped money and exchanges were appointed, where every one, might obtain new money for the old, on paying 14d. a pound for moneyage. New half-pennies and farthings were issued, and in a short time the clipped money entirely ceased to circulate. Edward, however, in 1280, set the first example of diminishing the weight of the coin. He ordered that the pound of silver should pass for 20s. 3d. The ounce was to weigh 20 pence, and the penny 24 grains, which were as much as 32 grains of wheat. He also coined groats, or pieces of four sterlings, or pennies. He issued very severe proclamations against persons who imported base coin from foreign countries, and he appointed persons to examine and seize all who did so. In consequence of his measures upwards of 300 persons were convicted and executed. Notwithstanding all his proclamations and punishments, vast quantities of base foreign coin, called *lano niger*, *pollards*, *crochards*, *scaldings*, *brabants*, *eagles*, *leonines*, *sleepings*, were current. In fact, there was a positive necessity for smaller coins than the silver penny, and nothing could prevent the circulation of such small coins, except a proper legal one, such as the present copper money.

103. In the 28th year of his reign, Edward reduced the penny, which since the Conquest had weighed 24 grains tower, to 23.7073 grains tower. Up to this time the pound of silver money was a pound both in weight and tale. It was now cut into 20 shillings and 3 pence, and the diminution of the standard was 1 19-81 per cent.

104. An anonymous author quoted by Ruding, (*Annals of the Coinage*, Vol. I. p. 206,) says that Edward used leather money, bearing his name, stamp, and figure, in the building of Carnarvon, Beaumaris, and Conway Castles, specimens of which were preserved in one of the towers of Carnarvon Castle. This author wrote in 1622.

105. Edward II. (1307) found it necessary to continue the circulation of the debased coin, which had caused so much distress in his father's life. In 1310, the House of Commons stated to the king that the money was clipped down to one half. In 1311, fresh proclamations were issued against the importation of base money from abroad. In 1319 and 1320, these proclamations were renewed, with no good effect, and in 1321, persons were appointed to search all the ports and other places for clipped and base money.

106. Edward III. (1327) found the coinage in a dreadful state, from the feeble and incapable reign of his father, and it was one of the first abuses he was called on to remedy. In 1331, the state of

the coinage was brought before Parliament, and a committee was appointed to do what they thought requisite. The exportation of good money was forbidden on pain of death. Good money was forbidden to be melted upon pain of forfeiture. All black money was to cease to be current one month after the proclamation. But good coin continued to be very scarce, and its scarcity, together with an abundant harvest in 1337, caused the price of a quarter of wheat to fall to 2s., and that of a fat ox to 6s. 8d. Proclamation after proclamation was issued, all of them perfectly ineffectual. The state of the currency was in fact a chronic disease, from the financiers of the age not having discovered its fundamental principle—that good and bad coin cannot circulate together, but the bad drives out the good.

107. This constant debasement and corruption of the currency repeatedly attracted the notice of Parliament, and they endeavoured to provide a remedy. But their plans never went further than making laws to prevent the exportation of good money and importation of bad, denouncing heavy penalties on those who did so, and offering rewards to those who discovered the culprits. Merchants were obliged to give security that for every sack of wool they exported, they should bring back two marks of silver. In 1343, the state of the currency was taken into consideration by Parliament, who called in the advice of certain merchants, goldsmiths, and moneyers, who were charged to devise means to prevent the export of good money, and the import of base money. A statute relating to the silver money was passed as the result of these deliberations. But as the persons who framed it had no scientific knowledge of the subject, we cannot be surprised that it was no avail.

108. One important measure, however, was adopted. It was determined to issue a gold coinage to supply the scarcity of the silver. This coinage was to supersede all the foreign gold coins then in circulation, and was to be legal tender between merchant and merchant, and between any others that chose to accept it. The permanent restoration of gold as a substance of currency took place in 1344, none having been coined since 1257. Three sorts of gold money were to be issued. One with two leopards, or lions, to be current at 6s., and to be equal in weight to two petit florins of Florence of full weight. Smaller coins of the value of 3s. and 1s. 6d. were also coined. These gold coins were called florins, maille florins, and farthing florins. This money was rated too high, and the merchants consequently refused to receive it, and it was recalled. A new coinage was issued, called nobles, maille nobles, and ferling nobles. The noble was 6s. 8d., and the others in proportion. The pound weight of standard gold was coined into 39½ nobles. The pound weight of silver was coined into £1 2s. 2d. It was ordered that the money should be publicly assayed in presence of the king's council, before it was given to the merchant. The new coins were ordered to be received in payment of sums of 20s. and upwards. They received their name from the noble nature of the metal of which they were made. They were considered to be the most pure, valuable, and beautifully executed coins of their day, and

indeed so much so, that even men of sense so late as the days of Elizabeth, were not ashamed to repeat that they were produced by the famous charlatan and alchemist, Raymond Lully, in the Tower, though he died about twenty years before the date of them.

109. In 1346, the evil practice of tampering with the coinage was resumed. The noble was diminished by 10 grains, that is, the pound weight of standard gold was coined into 42 nobles, at 6s. 8d.; at the same time the penny was reduced to 20 grains, or the pound weight of silver cut into 22s. 6d. In this year the Commons petitioned against the importation of foreign base coins called *Lushebournes*, which were worth only 8s. the pound; they had obtained very extensive circulation, to the great detriment of those who could not distinguish them. They also petitioned that in consequence of the great scarcity of good coins in the realm, the king would order frequent coinages, and that the mints should be kept open in all places where they used to be. Fresh quantities of the *lushebournes* being imported, the Commons again petitioned in 1347, and several merchants were drawn and hanged.

110. In 1352, the coinage was still further diminished in weight. The pound weight of gold was cut into fifteen pounds, and the pound weight of silver into 25 shillings, or 300 pennies or sterlings. Thus it was already diminished by one-fourth, since the conquest. This reduction in the weight of the coinage, caused great public dissatisfaction, and the Bishop of Winchester, the Treasurer of the kingdom, who was supposed to have advised it, became very unpopular. In 1354, the Commons again urged upon the king to reform the coinage, and that the sterling should be restored to its former value. But the king paid no attention to their complaints. The money of Scotland, which had hitherto been of the same weight and alloy as that of England, was now still more depreciated than the English money, and in 1355, was forbidden to be current as it had been up to that time. But the ancient coins of Scotland were allowed to be current as heretofore. During several years repeated proclamations were issued against the currency of the Scotch money, which was becoming rapidly debased.

111. Richard II. (1377) succeeded at the age of 11. In the next year the Commons again complained of the export of the good coin, and of the clipping and bad state of the currency. No gold and silver, they said, were brought into the realm. In consequence of this, every merchant was ordered to bring bullion of gold or silver to the value of 12 sterlings, for every pound of cloth of gold he imported.

112. In 1381, the Commons again called the attention of the king to the miserable state of the kingdom, in consequence of the bad state of the currency. The gold coin current was deficient in weight to the amount of 13s. 4d. in the pound, and even more. The officers of the mint also complained that no money of gold or silver was made there. They were accordingly summoned to give their advice. But they had nothing to propose, except what had been tried repeatedly and failed.

113. The reign of Henry IV. (1399-1413) calls for no special remark. The same complaints, the same useless remedies tried, can give no

variety to the same monotonous story. In 1411, Parliament at length weary of the same grievance, tried the remedy which a certain set of persons have always clamoured for under similar circumstances—a reduction of the standard of the coinage. The pound weight of gold was ordered to be coined into 50 nobles, and the pound weight of silver into 30s. of sterlings.

114. Henry V. (1413) turned his attention to the coinage immediately he mounted the throne. The statutes against the practices against the coin were ordered to be strictly enforced, and the diminution of the standard weight adopted.

The reign of Henry VI. (1422) presents us with nothing but the same story.

115. In the 4th year of Edward IV. (1464) a new coinage was ordered, and the standard still further diminished. The pound of gold was coined into £20 16s. 8d., that is, out of each pound weight, fifty nobles were cut, and out of each pound of silver, 37s. 6d. In the next year the gold standard was still further reduced, and £22 10s. were coined out of the pound. In the 17th year of his reign, 1477, fresh statutes were made against the debasement of the coin.

116. There is nothing in the reigns of Edward V. or Richard III. to detain us. Henry VII. (1485) was the first to coin gold pieces of the value of 20s. In 1489, which were called sovereigns, or pounds, from being equal to twenty nominal shillings. The pound weight of gold was cut into 22½ of these sovereigns, which therefore weighed 240 grains of pure gold. We should express this in modern terms by saying that the Mint price of gold was £22 10s. per pound. A modern sovereign contains 113.12 grains of gold, consequently the sovereign of Henry VII. was equivalent to £2 2s. 6d. of our money.

117. The 19th year of his reign, 1504, is also remarkable for a great recoinage, and on this occasion, the old Saxon money of account, the shilling, was first reduced to an actual coin. It contained 144 grains of pure silver, and as a modern shilling contains 80.7 grains, it was worth 9.408 of our money.

118. Henry VIII. (1509) succeeded to an immense treasure accumulated by the avarice of his father, which he soon wasted. In his eighteenth year, 1526, he determined to abolish the Cologne or Tower weight, which had been introduced by the Saxons, and to substitute the Troy weight, which was used on the Continent, and is three-quarters of an oz. greater. Thus the pound Tower contains 5,400 grains, the pound Troy, 5,760 grains. The pound Troy of gold was ordered to be cut into 27 pounds, and the pound Troy of silver to be cut into 45 shillings.

119. A new standard of the fineness of gold was also adopted. Different gold coins had been coined of gold of different standards. In this year the standard was ordered to be 22 carats fine and 2 carats alloy; and a pound weight of this new standard was ordered to be cut into £25 2s. 6d.

120. In 1543, he set the first example of debasing the standard of silver. It was reduced to 10 oz. fine and 2 oz. alloy, and a pound weight of this was ordered to be cut into 48 shillings. The next year it was reduced to 6 oz. fine and 6 oz. alloy. In 1544, he still further debased the standard both of gold and silver. Gold was reduced to

20 carats fine and 4 alloy, and silver was debased to 4 oz. fine and 8 of alloy. The coins continued of the same nominal weight, but in consequence of this debasement, the pound weight of gold was worth £36, and the pound weight of silver 144 shillings. The issuing of these debased coins gave rise to much distress and public complaint.

121. The baseness of the coinage at the accession of Edward VI., (1546), called forth many epigrams, but the indentures for the new coinage in the first year of his reign provided that it should be of the same base quality which his father had reduced it to. In 1549, the quality of the coins was somewhat improved, but they were further reduced in weight. The pound of gold of 22 carats fine and 2 carats alloy, was to be coined into 34 pounds by tale; the pound weight of silver of 6 carats fine and 6 alloy, was to be coined into 72 shillings. The shameful state of the coinage was strongly animadverted upon by the straightforward preacher Latimer, which gave his enemies excuse to charge him with disloyalty, which he ingeniously turned off by showing that the prophet Isaiah had denounced the bad silver of Jerusalem. He said in one sermon,—“I chaunced in my last sermon to speake a mery word of the new shillyng (to refresh my auditors), how I was lyke to put away my new shillyng for an olde groat. I was herein noted to speake seditiously. Yet I can comfort myself in one thing, that I am not alone, and that I have a fellow—a companion of sedition, and wot ye who is my fellow? Esay, the prophet. I speake but of a little preaty shillyng, but he speaketh to Hierusalem after an other sort, and was so bold as to meddle with their coins. Thou proud, thou couetous, thou hantie citie of Hierusalem! *Argentum tuum versum est in scoriam*. Thy silver is turned into, what? into testoons? *Scoriam*, into dross. Ah! seditious wretch, what had he to do with the mint? Why should not he have left that matter to some master of policie to reprove? Thy silver is drosse, it is not fine, it is counterfeit; thy silver is turned, thou haddest good silver. What pertained that to Esay? Mary, he espied a peece of diuinitie in that polysie, he threateneth them with God's vengeance for it * * * He imputeth it to them as a great crime. He may be called a master of sedition indeed. Was not this a seditious harlot to tell them this to their beards? to their face?”

In 1550, the old standard of gold 23 carats 3½ grains fine, and half a grain alloy was restored, and a pound weight of this gold was coined into £28 16s.

122. At last the evils of the corrupt and base state of the coinage became intolerable. In 1551, it was solemnly determined to have a great reform of the coinage, and to bring it back to its old standard. On the 30th of April, a proclamation was issued, stating that king Henry VIII. had on account of his wars, debased the coins, and had set forth to be current amongst his subjects testoons at twelve pence, and groats equally base at four pence; and that his present majesty perceiving that such coins were, by reason of their baseness, counterfeited, both abroad and at home, had caused other coins, denominated likewise shillings and groats, to be made of the value of twelve pence, and four pence; and it having appeared that those shillings and groats were also

counterfeited, by persons who used such counterfeits in buying up victuals and merchandize, giving they cared not what for the same to the great enhancement of the price of all things. His majesty, therefore, sensible of the great benefits that would arise from bringing back the coin to its old standard, had determined to reform the same. Preparatory to this, it was ordered that after the last day of August, the current coins should only pass for their worth in silver, shillings were reduced to nine pence, and groats to three pence. The natural consequence immediately followed, prices everywhere rose. A most extraordinary plan was adopted. In order to prepare the way for an amendment of the coinage, one still more debased was issued, containing only three ounces of silver to nine of alloy, in order that the debts of the realm might be paid, and £160,000 gained to make the reformed coinage. The people were in the utmost state of confusion at this meddling with the money. No one knew where the debasement would stop. The prices of all things rose excessively. To put a stop to this, a severe proclamation was issued, forbidding any one to invent, speak, mutter, or devise any manner of tale, news, or report, either touching the abusing of the said coin, or in disparagement of the king, or the proceedings of his council, on pain of fine, imprisonment, and mutilation. Nevertheless within a month, the value of the coin was still further diminished. The testoon was cried down from ninepence to sixpence, and the groat from threepence to twopence. The writers of the day notice the terrible sufferings of the poor from these repeated tamperings with the coinage. Cowper, afterwards Bishop of Winchester, says, "the richer sort partly by friendship, understanding the King beforehand, did put away that kind of money, partly knowing the baseness of the coin, kept in store none but good gold and silver, that could not bring any loss." Thus we see the *fact* noticed, that in a depreciated state of the currency, all the good coin vanishes from circulation, and is hoarded or exported, although the time was not yet come when men could discover that it was a great and fundamental law of the currency. The derangement of the usual relations between the coin and bullion was so great that bullion rose to 12s. the ounce, and the old angels which were coined to represent 6s. 8d., rose to 21s. The evident meaning of which was that there was only an ounce of silver in 12s. of coin, and that the silver coinage was so debased that 20s. of the debased money was only equal to 6s. 8d. of the good. These are the identical phenomena which afterwards excited so much controversy in the reign of William III., and in the great currency controversies of 1811, and subsequent years, when the Bank note exhibited exactly the same phenomena of depreciation as the debased metallic currency. The relative values of the precious metals were so little understood, that while silver was rated at 12s. the ounce, gold was only valued at 60s., or five times the value of pure silver, and at one time it was further reduced to 48s.

The council of Edward VI. was so thoroughly impressed with the frightful disorders of this monetary anarchy, that the measures for the complete reformation of the coinage were nearly completed, when the sickly boy died. Mary

found on her accession (1553), the coinage nearly reformed, and she resolved to take advantage of the popularity attending the reformation, at the same time intending to debase it. She issued a proclamation setting forth her intention to coin the money of silver of the standard fineness, but by her indentures with the mint master, the silver was reduced to eleven ounces fine, that is one dwt. less than the last of Edward VI., and two dwts. less than sterling. During this short reign, the usual proclamations were issued against importing counterfeit and base coin from abroad, and exporting good coin, and the usual complaints were made of persons, both natives and foreigners, buying up the good coins at higher rates than they were rated at, and melting them for exportation.

123. No sooner had Elizabeth mounted the throne (1558), than she turned her attention to complete the great reform of the coinage, begun by her brother Edward VI., being moved thereto by the illustrious Gresham, who has the great merit of being the first, as far as we can discover, who discerned the great fundamental law of the currency, that good and bad money cannot circulate together. The facts had been repeatedly observed before, but no one, that we are aware of, had discovered their necessary relation, before Sir Thomas Gresham. This eminent merchant was presented to the Queen, three days after her accession, by Cecil, and she immediately employed him to negotiate a loan, which was necessary in the exhausted state of the treasury left by Mary. Before leaving for Flanders, he wrote a letter of advice to the Queen, explaining how, among other things, all the fine money had disappeared from circulation. The cause of this he attributed to the *debasement of the coinage by Henry VIII.* Thus he seems to have been the first to declare that the issue of the base money was the *cause* of the disappearance of the good. Hence we may justly call it *Gresham's Law of the Currency*. He earnestly recommended the Queen to bring back the currency to its former purity, and in accordance with his advice, she soon set about it in earnest.

124. On the 27th September, 1560, a proclamation was issued, stating the evils of the debased money; that the estimation England had been held in was vanished away—that great quantities of forged and counterfeit coins were imported, and all the good old silver and gold ones were exported, and the prices of all things greatly raised. She therefore reduced the value of these base coins as nearly as possible to their true worth, the base penny to three farthings, and the others in proportion. Some testoons were however so grossly adulterated, as to be unfit for circulation at all, they were allowed to be current for four months only, at two-pence farthing. For relief of the holders of this base coinage, they were allowed to exchange it at the mint, during the space of four months, for good new money at that rate. This sudden reduction of the value of the money in their possession made many complaints among the people, and to remove these, another proclamation was issued stating the reasons for it. It is said that in former days England was held in high honour among nations, because she tolerated no money but gold and silver, whereas all other countries in Christendom, Germany, France, Spain, Flanders, Scotland, had

issued great quantities of base money in recent times, and had thereby brought on themselves much infamy and reproach. That England was now exposed to similar obloquy, and that the Queen was determined to remove this reproach, and as it would be a great burden and expense to herself, every good subject ought to be content, though it brought some loss upon himself. That in consequence of the base state of the coinage, vast quantities of counterfeit coin had been imported from foreign countries, and had been uttered at the rate of twelve-pence the testoon, when it was not in reality worth two-pence. That although great quantities of gold and silver had been coined in the latter end of the reign of Edward VI., as well as in the time of Mary, and even in her own reign, yet no part of it was seen commonly current, but part of it was exported, and part of it hoarded. That although the harvests had been plentiful, and there had been no such scarcity as that of former times, in which many hundreds and thousands of people had died, yet the prices of all sorts of commodities and food had risen immeasurably, and were daily rising, for which no remedy could be devised except causing the base money to be current at its true value. For every man of the least understanding, by one means or other, knew that a testoon was not worth sixpence, nor the piece of two-pence worth so much, and therefore no man would give the thing which was, and even had been worth sixpence, for a testoon, but would rather require two testoons; and so a thing being worth sixpence, was bought and sold either for two testoons, or one and a half, which was in reckoning twelve, and ninepence, and now every testoon being brought to the just value, it must needs follow that one shall buy of another hereafter for fourpence half-penny, which was wont to cost sixpence.

125. In future, nothing but fine money was to be issued, whence all poor persons who lived by daily wages, all poor gentlemen who lived upon pensions and stipends, all soldiers, and serving men, should have their payments made in good and fine money, and thus buy more necessities than they could before, by at least a fourth part.

By the reform also of the coinage, the foreign exchanges which had been much depressed, would be brought to their proper level, and foreign commodities reduced in price.

For these and other reasons every man ought to thank Almighty God that he had lived to see the honor of his country restored, silver in the place of copper, the prices of things lowered, and all people able to live more comfortably on their wages, and free from being robbed by forgers.

126. By the mint indentures of the 8th of November, of the same year, it was provided that the gold and silver should be of the old standard. The pound weight of gold, 23 carats $3\frac{1}{4}$ grains fine, was to be coined into 36 pounds by tale, a pound weight of crown gold, 22 carats fine, was to be coined into 33 pounds by tale. And a pound weight of silver of the old sterling standard was to be coined into 3 pounds, or 60s. by tale.

A medal was struck to commemorate the event. On the obverse was the Queen's bust, with the inscription *ET ANGLIÆ GLORIA*, and on the reverse, Justice seated, bearing the sword and balance, with the legend *ÆNE CONSTITUTA ÆM NUMARIA*.

PART V. VOL. I.

This great reform gave much public satisfaction, and was greatly commended by contemporary historians. Repeated proclamations were issued against the base monies, which still circulated, and in order to encourage people to bring them to the mint, it was spread abroad that something more than their true value would be allowed for them, and in order to accelerate the new coinage which the Queen had so much at heart, she went publicly to the mint, and coined certain pieces of gold herself, which she gave away to those about her. For the public convenience, coins of a small denomination were struck of sterling silver. It was further ordered that no foreign coins, except the French and Flemish crowns, should be any longer current in the kingdom, but every one who had foreign coins of gold or silver might bring them to the mint, and receive in exchange their full value in the coin of the realm.

127. In 1560, the mill and screw were introduced in the mint by a Frenchman, who was allowed to coin milled money in the tower.

128. Notwithstanding the great reform in the coinage, the old mischiefs began to re-appear, and many proclamations were issued against clippers and counterfeits. Great complaints also arose of the scarcity of money in 1569. The Queen borrowed money of her subjects at 6 per cent., to supply the general want. About this time, too, the want of small change was felt so strongly that numbers of tradesmen were obliged to issue private tokens for half-pence and farthings. They were made of lead, tin, latten, and even leather. The Queen was much annoyed at this, and sought to remedy it. But it was represented to her that if the farthings were coined of silver, there would only be two grains in them, which would be a coin too small for general use, and if they were increased by alloy to six grains, which was the smallest that it would be convenient to coin, they would be so easily counterfeited, as if they were copper. But if they were made of copper, they might faithfully be the weight of one penny-weight, and could not be counterfeited. The Queen approved the suggestion, and a proclamation was drawn up to make them current. But it was never issued, and the coins were not struck. But the Queen granted a license to the city of Bristol to coin copper tokens, which were to be current for small change in the city and 10 miles round.

129. In 1587, the old evils of clipping were strongly felt; a proclamation warned people against receiving or passing any clipped or counterfeit money, and all to whom any such was offered were authorized to refuse them, and to bore them, and cut them into pieces, and give them back to the owner. And in order to enable any one to judge of the proper weight of the coins, the warden of the mint was ordered to prepare balances exhibiting the true weight of each coin, and sell them to the public at reasonable prices. And every city, borough, and town corporate was ordered to have at least one of such balances, to settle disputes among the subjects. The "remedy," or loss of weight, allowed on the different coins, was for the piece of 30s. not more than $4\frac{1}{2}$ grains; for that of 20s., 3 grains; for that of 15s., $2\frac{1}{2}$ grains; for that of 10s., 2 grains; for 5s., 1 grain; and for 2s. 6d., $\frac{1}{2}$ grain. The prices of the balances were also regulated.

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130. In 1593, the pound weight of crown gold was ordered to be coined into 33 pounds by tale. In 1601, the weight of the coinage, both gold and silver, was diminished. The pound weight of crown gold was coined into £33 10s. by tale; and the pound weight of silver into £3 2s. by tale.

131. James VI. (1603) issued a proclamation making the money of Scotland current in England at its proportionate value. The price of six pounds was found to be equivalent to, and made current at, 10s., and the mark for 13½d. In the same year he continued the bad practice of diminishing the weight of the coin. The pound weight of crown gold was ordered to be coined into £37 4s. by tale. The silver to be as in the last coinage of the Queen.

132. In the same year he determined to issue a uniform coinage for Great Britain. New coins of gold and silver were struck,—the unit of gold of the value of 20s. sterling, others of the value of 10s., 5s., and 4s. A new silver coinage was also struck, and tables prepared shewing the relative weights of English and Scotch money. This was done to facilitate the union of the kingdoms, which, however, he was unable to effect.

133. It was soon afterwards found that the gold coin was underrated in comparison to the market price of gold and silver in foreign countries. It was, therefore, exported in large quantities. To remedy this, the unit was raised in value to 22s., and the other coins in proportion. In order to induce merchants to import bullion, the king gave notice that foreign coins should be bought at the mint at fixed rates.

134. In 1613, an attempt was made to put down the circulation of lead tokens, which were required in the dearth of small change. The extent to which these were issued may be imagined, when Sir Robert Cotton says, that in London alone there were above 3,000 tradesmen, who issued, on an average, five pounds a piece of leaden farthings. And the number throughout the country was proportional to that in London. A proclamation acknowledged the necessity for tolerating such small money in times past, but it said that it had also its inconveniences, as the issuers of them often died or removed, and those who held these tokens lost thereby. The king, therefore, covenanted with Lord Exeter, to coin a sufficient quantity of copper farthings for the use of those who liked to receive them. No one, however, was to be compelled to take them against his will. The issue of leaden tokens was then forbidden. The new farthings were very unpopular, and were got into circulation with great difficulty. Throughout the reign the usual proclamations continued to be issued against malpractices and exportation of the coinage, but with the usual intility.

135. Charles I. (1625) found the same complaints of the scarcity of money, rife on his accession, as had been common for centuries. A commission was directed to Lord Mandevill, to inquire into the causes of the great scarcity of money, and the means by which coin and bullion might be brought into the country more plentifully, and also be preserved from exportation. They were to inquire what native commodities of the kingdom were of that necessary usefulness

to neighbouring nations, as that they might fitly return home a proportion of coin and bullion for a supply of treasure. The financiers of that and all preceding ages were unfortunately ignorant that the evils they complained of, were caused by the condition of the currency itself, and until that was amended, everything else was futile. A patent was granted to the Duchess of Richmond and Sir Francis Crane for 17 years, to have the exclusive right of coining farthing tokens of copper, and the issue of all private ones was forbidden.

136. In 1627, strong complaints were made that the goldsmiths culled out all the more weighty coins for the purpose of melting and exporting them. This was caused by the liberty which certain goldsmiths had usurped of acting as exchangers, contrary to law. To remedy this, the Earl of Holland was appointed sole exchanger, and every one else forbidden to buy or sell bullion or coin, under heavy penalties. A proclamation was issued forbidding the exportation of the coin; commanding that no goldsmith, finer, &c., should melt, &c., any coins, or cull for the purpose of melting, exporting, or altering the coins; and that no one should take for exchange more than the prices allowed at the mint in exchange. Every goldsmith upon a sale, was to give a ticket, with his name and mark on it, to his customer, stating the value in bullion, and the value of the workmanship separately, so that the buyer might know what to demand for the same at the King's mint or exchange. All money deficient in weight beyond the quantity already allowed, was to be decried and rendered uncurrent, and if any was offered in payment, the person to whom it was offered might bore it, and return it to the offerer. All gold and silver plate were ordered to be of the fineness of the money of England.

137. In 1632, a change had been going on in the relative values of gold and silver, and gold became so plentiful, and silver so scarce, that drovers and farmers who brought their cattle to Smithfield, commonly made their bargain to be paid in silver, and not in gold. Silver rose to a premium of two-pence in the pound, to get twenty shillings in silver for the exchange of a twenty shilling piece of full weight. People in London and Westminster commonly carried gold scales about with them to weigh gold on all occasions. Repeated proclamations were issued against the quantities of counterfeit farthing tokens in circulation, and none were allowed to pass except those issued by the late and present kings. In 1637, informations were exhibited in the Star-chamber against twelve persons for melting and exporting the coin, and culling out the heaviest coins, and selling them above the mint price. They were fined or imprisoned. In 1640, the exportation of the gold coin was strongly complained of in Parliament. In the same year, the king suddenly seized the merchants' money and bullion in the mint, which they used as a species of bank of deposit. After some difficulty they got it back, but the credit of the mint was gone, and they were obliged to keep it at home, until they began to entrust it to the goldsmiths, who thus became the first private bankers in England.

138. The king was now so distressed for money that it was solemnly debated at the council to

coin £300,000 of base money. After several days' debate the plan was rejected, chiefly in consequence of the able and powerful opposition of Sir Thomas Rowe, whose speech is given at length in Rushworth, and well deserves reading. In December, the Commons presented a remonstrance to the king, strongly upbraiding him for the violation of public faith, and private interest, in seizing the merchants' bullion and cash in the Tower, and for the abominable project of the brass money, by which the whole kingdom was to be robbed at once.

139. It may be stated to the honor both of the King and the Parliament, that neither of them debased the coins during the unhappy civil war. The Parliament carefully used the royal dies in their coins, so that they should freely pass current throughout the kingdom, and the King set up a mint in New Inn Hall, at Oxford. The workmanship of the pieces he caused to be struck was of the rudest description, but the purity of the standard was maintained.

140. The Parliament of the Commonwealth, 1649, ordered gold coins of the value of 20s., and of the weight of 5 dwts. 20 grains 10 mites, and pieces of 10s. and 5s. of proportionate weight, to be struck, and silver pieces of 5s., of the weight of 19 dwts. 8 grains 10 mites 8 droits., and smaller coins in similar proportions, but all of the standard fineness, to be struck, and current throughout the Commonwealth. Cromwell issued a small coinage of the same weight and denominations as that of the Commonwealth, but it never became generally current to any extent.

141. Charles II. (1660) found it necessary to issue the usual proclamations against clipping, melting, and exporting the coin. On the 10th of June, 1661, it was said that there was a great scarcity of money, occasioned by the illegal and promiscuous buying and selling all sorts of gold and silver at higher rates than ever his Majesty, or any of his royal progenitors, had allowed at their mints. All the old statutes against such practices were revived, and ordered to be strictly enforced. Notwithstanding all these proclamations, it was observed that the gold money was exported in such quantities, as to be far more common in foreign countries than in England. A consultation of the privy council was held to consider this evil, and having called in the officers of the mint and the most experienced goldsmiths, they came to the conclusion that it arose from the great profits made by the merchants by exporting gold coin, which bore a higher value compared to silver abroad than it did at home. To cure this, it was determined to raise the value of the gold coin at home, to correspond with its market price abroad. The unit which had been struck to represent 20s., and had been raised to 22s., was now further raised to 23s. 6d., and the other gold coins in proportion. It was also repeated that all pieces below the remedy allowed, should be refused in payment. The money struck during the time of the Commonwealth was called in, and exchanged for new money, according to its weight.

The year 1663 is remarkable for the first issue of the famous guineas. They were made of the gold imported by the African Company. As an encouragement to bring over gold to be coined, the Company were allowed by charter to have their stamp of an elephant on the coins made of

the guinea gold. They were struck to represent 20s., and to take the place of the units of James I., Charles I., and the Commonwealth, which were now called broad-pieces.

142. An important change now took place in the laws relating to the export of bullion, which shewed some dawning of the truths of Political Economy. The utter uselessness of the laws against exporting bullion, began at last to be perceived by statesmen. The Act, Statute 1663, c. 7, 12, says, "Forasmuch as several considerable and advantageous trades cannot be conveniently driven and carried on without the species of money and bullion, and that it is found by experience that they are carried in greatest abundance (as to a common market) to such places as give free liberty for exporting the same, and the better to keep in and increase the current coin of this kingdom," and it was then permitted to anyone to import and export all foreign coin and bullion with absolute freedom. What a pity it was that the Economical light thus admitted did not still further enlighten the legislature as to the mischief of interfering with other branches of trade.

143. In 1666, another act for the encouragement of coinage was passed, which is still in force. By this it was declared that all persons might bring bullion to the mint, and receive the full weight of it in current coin, without any deduction whatever. Since this time the whole expense of the mint has been borne by the public. The policy of this measure has given rise to much difference of opinion. (SEIGNORAGE.)

144. In 1670, the pound weight of crown gold was ordered to be coined into £44 10s. by tale; viz., into pieces to be current at 10s., 20s., 40s., and £5 each; and the pound weight of silver of the old standard into £3 2s. by tale. The 20s. gold pieces or pounds were called guineas, and their weight continued the same as long as they were struck.

In this reign the old national coin of England, the silver penny, ceased to be struck.

145. From some fatality they seemed to be always incapable at the English mint of ascertaining the true value of gold and silver according to their market rates. The guinea was soon found to be underrated, and accordingly the old practices of clipping, melting, and exporting were soon in full operation, and the scarcity of money was complained of in Parliament. Towards the end of this reign the coinage was much deteriorated, and all these bad practices flourished still more during the short reign of James II. (1684-1688.) That king had no time during his troubles to debase the English coinage, but his debasement of the Irish coinage is mentioned below. (COINAGE OF IRELAND.)

146. William III. and Mary (1688) continued the coinage in all respects as during the last reign. In April, 1690, the great scarcity of silver coins occasioned great public inconvenience. The goldsmiths complained to the House of Commons, that they had ascertained that immense quantities of silver bullion and dollars had been exported. That many Jews and merchants had recently bought up vast quantities of silver to carry out of the kingdom, and had given three half-pence an ounce above its regulated value. That this had encouraged the melting down of much plate

and milled money, whereby for six months past no bullion had been brought to the mint to be coined. The House appointed a committee who verified these allegations. It was shown that the profit of melting down the milled money for exportation was above £25 per £1,000, and that the mint price of silver was 5s. 2d. per ounce, but it was generally sold for 5s. 3½d. The House in consequence passed one of their useless laws against exporting bullion.

147. The state of the currency now became every day more disgraceful. Quantities of base and counterfeit coin were thrown into circulation. The House of Commons addressed the king to abolish the right of private coinages of half-pence and farthings. The current coins had been for many years clipped and adulterated, which in 1694 reached such a height, that the silver coins current had lost nearly half their value, while a great part of the current money was only iron, brass, or copper plated.

148. As this state of matters gave rise to the first great currency debate of modern times, and brought about a great monetary crisis, we may dwell upon it rather fully.

During 1694, the silver coinage became worse daily, and by the end of the year, guineas which had originally been coined to represent 20s., gradually rose, till they reached 30s. The exchange with Holland fell 25 per cent., and it would have fallen still lower, only it was shown that the real exchange was in favor of England. The exchange with Ireland fell so much that £70 there was worth £100 in England.

149. The evils of clipping the coin reached so great a height at the end of 1694, that Mr. Fleetwood, the Chaplain-in-ordinary to the king and queen, being selected to preach before the Lord Mayor and Aldermen on the 16th December, 1694, made it the subject of his sermon on the text, Gen. XXIII. 16. In an admirable sermon, or rather politico-economical discourse, he denounced the fraud and wickedness of clipping and debasing the coinage. He said (p. 19), that the money was clipped down nearly one-half. He shewed that he understood the subject a great deal better than many men a century later. He shewed that if the money generally were clipped, all the good and weighty money that remained must be exported. "The merchant that exports more goods from home than he imports from abroad, must unavoidably discharge the overbalance with good money; this he can never do with clipped, for it is not *Cæsar's face and titles*, but *weight and goodness* that procure credit. And if a foreigner import more of his country goods than he carries away of ours, the overbalance must be paid in weighty money, for the clipped will not go abroad. Now if the exportation of our weighty money (which is only now the milled) be a mischief to the nation, we see it is occasioned chiefly by the clipping."

150. The disgraceful state of the coinage could no longer be overlooked by Parliament. On the 8th of January, 1695, a committee was appointed to consider the subject. At this time, says the Parliamentary History, Vol. V. p. 955. "The difficulty lay so heavy upon the government, that a stop was almost put to trade and taxes. The current silver coin had for many years begun to be clipped and adulterated; and the mischief of

late had been so secretly carried on by a combination of all people concerned in the receipt of money, and so industriously promoted by the enemies of the government, that all pieces were so far diminished and debased, as that five pounds in silver specie was scarce worth 40s., according to the standard; besides an infinite deal of iron, brass, or copper washed over or plated." The committee recommended that the money should be recoined into milled money. It estimated the expence at one million. That the new money should be of the same weight and fineness as the old. That the crown piece should be current at 5s. 6d. That various penalties should be imposed for offences against the coins. An Act was passed, Statute 1695, c. 17, to prevent counterfeiting and clipping the coin of the kingdom. This statute averred that it was notorious that the current coin had been greatly diminished by clipping, rounding, filing, and melting, and that many false and counterfeit coins had been clipped, for the better disguising thereof, and that these practices had been much occasioned by those who drove a trade of exchanging broad money for clipped money, and other arts and devices. It, therefore, prohibited any person from exchanging, lending, selling, borrowing, buying, receiving, or paying any broad or unclipped silver money for more in tale, benefit, profit, or advantage than the same was coined for, and ought by law to pass for, under a penalty of 10s. for every 20s. so illegally trafficked with. It also enacted that whoever should buy or sell, or knowingly have in his possession, any clippings or filings of the coin, should forfeit them, as well as a penalty of £500, and be branded on the right cheek with a hot iron. It forbade any one but a trading goldsmith, or refiner of silver, to buy or sell bullion, under pain of imprisonment, and enacted numerous other vexatious penalties and regulations respecting the export of bullion. All these absurd cruelties were wholly ineffectual, and while multitudes of miserable wretches were dangling on the gibbets, clipping and counterfeiting were as rife as ever. Guineas which had originally been coined to be equal to 20s., had progressively risen as the silver got worse, till at this time they were current at 30s. of the base trash, which passed by the name of silver coin.

151. It is of very great importance in the theory of the currency to ascertain the exact period when the silver coin was so debased and corrupted, that guineas passed at 30s. We shall, therefore, make some extracts from contemporary pamphlets. It says in one (*Some remarks on a Report containing an Essay for the Amendment of the silver Coins*, by Mr. W. Lowndes. London, 1695.), after speaking of the gradual deterioration of the coinage, p. 6,—"And so by degrees as the silver coin was diminished and debased in itself, so it fell in the estimation of the people, and in proportion gold advanced, and also bullion, (that is, not in itself, but in proportion to the bad money,) not that bullion became worth 6s. 5d. an ounce, or gold 30s. a guinea in good money, that is, in weighty standard money, but in clipped and counterfeit money, whereof 6s. 5d. was not of the true or esteemed value of 5s. 2d. And as we ourselves grew sensible of the want of value in money that passed, so did Foreigners likewise, and the foreign exchanges soon altered accordingly, so that it cannot

properly be said that bullion is advanced much, or that gold is advanced much, or commodities are advanced much, but that the money that is exchanged for them is of much less value than it was, and the new coining of our money will not, as I apprehend, alter the value of bullion, gold, &c., but it will bring silver in coin to its due value."

152. After enforcing and illustrating these views at considerable length, he observes that Mr. Lowndes hoped that the exchange with Holland, which was then 25 per cent. against England, might be prevented falling lower; and says, p. 16,—"If guineas continue current at 30s. a piece, the exchange will continue about the rate it does, except the common and ordinary variation which many sudden drafts and remittances occasion, and if the silver coin is redressed, guineas will fall."

153. Also in *A letter from an English Merchant at Amsterdam to his friend in London*, 1695, it says, p. 2.—"The occasion of the advance of gold and guineas, I observed to you, was from the badness of your silver coin, that is current amongst you, and from whence that mischief had its rise, that as I hear a hundred pounds in silver weighs now generally but 14 or 18 lbs. instead of 32 lbs., which it ought to weigh, and this you have suffered insensibly to steal upon you, growing every day and from one year to another, clipping it by degrees three or four times over, till at last it came to this that it can hardly be clipped any more, and this evil was carried on in city and country by all men, and encouraged by some goldsmiths, refiners, and others. This brought upon you the rise of gold and guineas." He also says the exchanges were 20 to 25 per cent. against England. He estimates the loss upon a new coinage at 8s. 6d. per guinea, and points out the futility of the juggle of altering the standard. "You have an instance with Ireland very plain, £100 in England used to be worth £110 to £115 in Ireland, now they write me thence that they give but £80 to £83 in Ireland for £100 in England."

"It is reported here, that you are upon a project of lessening the weight of your money by making it 20 per cent., or anything what you will, less in weight than you formerly coined it, and to stamp 4s. and call it, and make it pass for 5s. Surely this fallacy can never pass upon Englishmen that have seen and known the folly of such devices in Spain and Portugal."

154. In February, 1696, several petitions were presented to the House of Commons, (*Commons Journals*. Vol. XI. p. 445.) The graziers, butchers, and others connected with Smithfield Market, said that £40,000 a week passed through their hands for cattle, which for almost twelve months past had been paid in guineas at 30s. a piece, for want of current silver. There are besides, abundance of pamphlets in existence which prove that guineas were commonly current for 30s. in the spring of 1695.

155. The frightful disorder of the currency may be judged of by the following facts. In the months of May, June, and July, 1695, 572 bags of silver coin, each of £100, were brought into the Exchequer, whose aggregate weight, according to the standard ought to have been 18,451 lbs., 6 oz., 16 dwts., 8 grs.: their actual weight was 9,480 lbs., 11 oz., 5 dwts., making a deficiency of

8,970 lbs., 7 oz., 11 dwts., 8 grs., shewing a deficiency in the weight of the current coins in the ratio of 10 to 22. One writer says, (*An Essay for regulating of the coin*. By A. V. Sept. 2, 1695.)

—"Upon trial, I have found that 5s. of milled money hath weighed 8s. of the present current money, and 3s. of the 8s. was not clipped, only worn. Again, I have found 10s. in milled money to weigh 21s. of the clipped money. Again, 20s. of milled money to weigh 43s. of our now current money."

"I have gone to several goldsmiths in London, and have got them to take out of their counters a bag of £100 as came to hand, which upon trial, I have found at one place to weigh,

	Oz.	Dwt.	Gr.
A bag of £100	230	13	6
Another place £100 Weighed ...	222	0	15
Another place	198	17	0
Another place	190	0	0
Another place	182	8	0
Another place	174	11	20

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"The £600 weighing in all 1,198 oz., 5 dwts., 17 grs., and is no more than what £310 in milled money will weigh."

"I am informed the money paid into the Exchequer doth weigh from 15 (and seldom the £100 reacheth) to 20 lbs. weight. So that the very best brought in there, doth not weigh two thirds of what it ought to do, and the money paid into the Exchequer is supposed, a great part of it, to come from the country."

"But as it's believed that the money in the country is generally not the one half so bad as it's in and near London, I have procured an account to be sent me from the following cities, from whence I am informed that £100 doth weigh on trial of two bags in each place, to be viz:—

	Oz.	Dwt.	Gr.
In the City of Bristol, one bag of £100 weighed	240	0	0
Another weighed	227	15	0
In the City of Cambridge, a bag of £100 weighed	208	5	10
Another weighed	211	0	19
In the City of Exon, one bag of £100 weighed	180	7	0
Another weighed	192	8	0
In the City of Oxford, £100 in half-crowns weighed	218	10	0
£100 in shillings	198	0	15
	1,669	1	20

The £800 weighing not more than £431 15s. of milled money will weigh, and but a very small difference between the weight of the money in London and the country."

156. This disgraceful state of the money gave rise to the greatest public confusion and distress, and a warm controversy arose whether the new money which should be coined, should be of the old standard in weight, fineness, and denomination, or whether it should be depreciated, or raised in value, as it was absurdly called. This controversy was keenly disputed then, and we may pay some considerable attention to it, because it was revived under another form 116 years later, when the notes of the Bank of England were depreciated, and a strong party maintained that the standard of the coin should be depreciated to the level of the depreciated notes.

157. Mr. William Lowndes, the Secretary to the Treasury, was ordered by them to make a Report on the subject of the coin. This he did in *A Report containing an Essay for the Amendment of the Silver Coins*. London, 1695. In this he enters into a long, and at that time, valuable investigation of the history of the coinage, and its successive depreciations in weight and fineness. After giving the details of every mint indenture for four hundred years, he says, p. 56, "By the careful observing of which deduction here made, from the Indenture of the Mint for above 400 years past (many of which are yet extant, and have been seen and examined by me), it doth evidently appear, that it has been a policy constantly practised in the mints in England (the like having indeed been done in all foreign mints belonging to other governments), to raise the value of the coin in its extrinsic denomination from time to time, as any exigence or occasion required; and more especially to encourage the bringing in of bullion into the realm to be coined, (though sometimes when the desired end was obtained, the value has been suffered to fall again,) so that in the whole number of years from the 28th Edward I., until this time, the extrinsic value or denomination of the silver is raised in about a triple proportion." Here we cannot fail to observe the utter confusion of idea that Mr. Lowndes, and too many after his time, labor under. They manifestly suppose that by raising the *name* of the coin, they raise its *value*. The extrinsic value of the coin can by no possibility mean anything else but the quantity of things it will *exchange for*. And to call the quantity of things it will exchange for its *denomination*, is a most pitiable confusion of idea. Mr. Lowndes then says, "The which being premised, and every project for debasing the money (by the reason before given) being rejected as dangerous, dishonourable, and needless. It remains that our nation in its present exigence, may avail itself, by raising the value of its coins, and this may be effected either by making the respective pieces called crowns, half-crowns, shillings, and to be lesser in weight, or by continuing the same weight or bigness, which is at present, in the unclipped moneys, and ordaining at the same time that every such piece shall be current at a higher price in tale.

"But before I proceed to give my opinion on this subject, it seems necessary for me to assert and prove an hypothesis, which is this, namely, *That making the pieces less, or ordaining the respective pieces (of the present weight) to be current at a higher rate, may equally raise the Value of Silver in our Coins.*"

158. Mr. Lowndes then enters into an argument to prove that sixty-pence are equal to seventy-five-pence—a wild goose chase in which we decline to follow him.

159. His proposal was then, that all the existing unclipped silver money should be raised in denomination to 6s. 3d. the crown, and other coins in proportion, so that the shilling would pass for fifteen pence instead of twelve. That new coins should be struck at the increased denominations. These coins he proposed to christen by new names. The reasons he alleges for this proceeding are—
"1. The value of the silver in the coin ought to be raised to the foot of 6s. 3d. in every crown,

because the price of standard silver in bullion is risen (from divers necessary and unnecessary causes, producing at length a great scarcity thereof in England,) to 6s. 5d. an ounce. This reason (which I humbly conceive will appear irrefragable) is grounded chiefly upon a truth so apparent, that it may well be compared to an Axiom, even in mathematical reasoning, to wit,—That whensoever the extrinsic value of silver in the coin hath been, or shall be, less than the price of silver in bullion, the coin hath been, and will be melted down."

160. He then enters into some objections against this proposal, and says, p. 76—"That everything having any value or worth whatsoever, when it becomes scarce, grows dear, or (which is the same thing) it riseth in price, and consequently it will serve to pay more debts, or it will buy greater quantities of other goods of value, or in anything else it will go further than it did before. That silver in England being grown scarce as aforesaid, is consequently grown dearer. That it is risen in price from 5s. 2d. to 6s. 5d. an ounce; and by daily experience 19 3-10 dwts. in sterling silver (equal to the weight of a crown piece) in England, doth and will purchase more coined money than 5s. by tale, (though the latter be delivered *bona fide* in unclipped shillings, or in a good bill,) and consequently doth and will purchase and acquire more goods, or necessaries, or pay more debts in England, or (being delivered here) it fetches more money in any foreign parts by way of exchange, than 5s. by tale, or the sixth part of a guinea by tale, or goods to the value of 5s. in tale only, do or can fetch, purchase, or acquire. That this advanced price of the silver has been growing for some time, and is originally caused by the balance, excess, or difference above mentioned, which naturally and rationally produces such an effect. * * * That the raising the value of the silver in our coins to make it equal to silver in mass, can in no sense be understood to be a cause of making silver scarce. That there can never be proposed any just or reasonable foot upon which the coin should be current, save only the very price of the silver thereof, in case it may be molten in the same place where the coins are made current, or an extrinsic denomination very near that price. It being most evident that if the value of the silver in the coins should (by any extrinsic denomination) be raised above the value or market price of the same silver reduced to bullion, the subject would be proportionably injured and defrauded, as they were formerly in the case of the base monies coined by public authority."

161. He then says the value of the silver in the coin ought to be raised, to encourage the bringing of bullion to the mint to be coined. That this had been repeatedly done both in the English and foreign mints. That raising the value of silver in coin would increase the whole species in tale, and thereby make it more commensurate to the need for it for carrying on the common traffic and commerce of the nation, and to answer the payments on the numerous contracts, securities, and other daily occasions, requiring a large supply of money for that purpose.

He says that at that time guineas passed current for 30s.

He then gives some details of the state of the

coinage, by which he shewed that they were diminished by about half their usual weight.

162. Locke had in 1691 published a treatise (Locke) in which he shewed the utter futility of interfering with the rate of interest by law, and combated the idea that was then becoming prevalent, that the value (as it was called) of the coin should be raised, in order to keep it in the country. He showed that the persons who supported such a plan were confounding the *denomination* with the *value*, its name with the purchasing power, and that all such ideas proceeded from a confusion of terms, and would have no real effect. The arguments of Locke, though by no means absolutely novel, had never been put before so luminously and fully. The proposal of Lowndes, coming from a man holding his official position, demanded a prompt notice and exposure. This Locke did, in *Further considerations concerning raising the value of Money*, in which he exposed the fallacy of Lowndes's arguments.—“Raising of coin is but a specious word to deceive the unwary. It only gives the usual denomination of a greater quantity of silver to a less, (v. g. calling four grains of silver a penny to-day, when five grains of silver made a penny yesterday,) but adds no worth, or real value, to the silver coin, to make amends for its want of silver. That is impossible to be done, for it is only the quantity of silver in it, that is, and eternally will be, the measure of its value, and to convince any one of this, I ask whether he that is forced to receive but 320 ounces of silver under the denomination of £100 (for 400 ounces of silver which he lent under the like denomination of £100) will think these 320 ounces of silver, however denominated, worth those 400 ounces he lent? If any one can be supposed so silly, he need but go to the next market, or shop, to be convinced that men value not money by the denomination, but by the quantity of the silver there is in it. One may as rationally hope to lengthen a foot, by dividing it into 15 parts, instead of twelve, and calling them inches, as to increase the value of the silver that is in a shilling, by dividing it into 15 parts instead of twelve, and calling them pence. This is all that is done when a shilling is raised from 12 to 15 pence.”

“Clipping of money is raising without public authority, the same denomination remaining to the piece, that hath now less silver in it than it had before.

“Altering the standard, by coining pieces under the same denomination with less silver in them than they formerly had, is doing the same thing by public authority. The only odds is that, by clipping, the loss is not forced on any one (for nobody is obliged to receive clipped money); by altering the standard, it is.

“Altering the standard by raising the money, will not get to the public, or bring to the mint to be coined, one ounce of silver: but will defraud the king, the church, the universities and hospitals, and of so much of their settled revenue as the money is raised, v. g. twenty per cent. of the money, (as is proposed) be raised one fifth. It will weaken, if not totally destroy the public faith, when all that have trusted the public, and assisted our present necessities, upon acts of Parliament, in the million lottery, bank act, and other loans, shall be defrauded of twenty per cent. of what those acts of Parliament were security for. And

to conclude, this raising our money will defraud all private men of twenty per cent. in all their debts and settled revenues.” * * *

“Nothing I humbly conceive can put a stop to clipping, now it is grown so universal, and men become so skilful in it, but making it unprofitable.

“Nothing can make clipping unprofitable, but making all light money go only for its weight. This stops clipping in a moment, brings out all the milled and weighty money, deprives us not of any part of our clipped money for the use of trade, and brings it orderly, and by degrees, and without force, into the mint to be recoinced.”

163. He then maintains that there can be but one measure of value in a country.—“Silver, therefore, and silver alone, is the measure of commerce. Two metals, as gold and silver, cannot be the measure of commerce both together in any country; because the measure of commerce must be perpetually the same, invariable, and keeping the same proportion of value in all its parts. But so only one metal does, or can do to itself; so silver is to silver, and gold to gold. An ounce of silver is always of equal value to an ounce of silver, and an ounce of gold to an ounce of gold; and two ounces of the one, or the other, of double the value to an ounce of the same. But gold and silver change their value one to another: for supposing them to be in value as 16 to 1 now; perhaps the next month they may be as 15½ or 15¼ to 1. And one may as well make a measure, v. g. a yard, whose parts lengthen and shrink, as a measure of trade of materials that have not always a settled invariable value to one another.

“One metal, therefore, alone can be the money of account and contract, and the measure of commerce in any country. The fittest for this use of all others is silver, for many reasons which need not here be mentioned. It is enough that the world has agreed in it and made it their common money, and, as the Indians rightly call it, measure. All other metals, gold as well as lead, are but commodities.

“Commodities are moveables, valuable by money, the common measure.

“Gold, though not the money of the world, and the measure of commerce, nor fit to be so, yet may, and ought to be coined to ascertain its weight and fineness; and such coin may safely have a price as well as a stamp set upon it by public authority; so the value set be under the market price. For then such pieces coined will be a commodity as passable as silver money, very little varying in their price: as guineas which were coined at the value of 20s., but passed usually for between 21s. or 22s., according to the current rate. But not having so high a value put on them by the law, nobody could be forced to take them to their loss at 21s. 6d., if the price of gold should happen at any time to be cheaper.

“From what has been said, I think it appears—

“1. That silver is that which mankind have agreed on, to take and give in exchange for all commodities as an equivalent.

“2. That it is by the quantity of silver they give, or take, or contract for, that they estimate the value of other things, and satisfy for them; and thus by its quantity, silver becomes the measure of commerce.

“3. Hence it necessarily follows, that a greater quantity of silver has a greater value; a less

quantity of silver has a less value ; and an equal quantity an equal value.

"4. That money differs from uncoined silver only in this, that the quantity of silver in each piece of money, is ascertained by the stamp it bears ; which is set there to be a public voucher of its weight and fineness.

"5. That gold is treasure, as well as silver, because it decays not in keeping, and never sinks much in value.

"6. That gold is fit to be coined, as well as silver ; to ascertain its quantity to those who have a mind to traffic in it ; but not to be joined with silver as a measure of commerce."

164. Locke then examines Lowndes's doctrine that the value (or denomination) of the silver coin should be raised to 6s. 3d. the ounce, because the price of standard silver had risen to 6s. 5d. the ounce.

"This reason seems to me to labor under several mistakes ; as

"1. That standard silver can rise in respect of itself.

"2. That standard bullion is now, or ever was, worth or sold to the traders in it for 6s. 5d. the ounce, of lawful money of England. For if that matter of fact holds not to be so, that an ounce of sterling bullion is worth 6s. 5d. of our milled weighty money, this reason ceases : and our weighty crown pieces ought not to be raised to 6s. 3d., because our light clipped money will not purchase an ounce of standard bullion, under the rate of 6s. 5d. of that light money. And let me add here, nor for that rate neither. If, therefore, the author means here, that an ounce of standard silver is risen to 6s. 5d. of our clipped money, I grant it him, and higher too. But then that has nothing to do with the raising our lawful coin, which remains unclipped ; unless he will say too, that standard bullion is so risen, as to be worth, and actually to sell for, 6s. 5d. the ounce, of our weighty milled money. This I not only deny, but further add, that it is impossible to be so. For 6s. 5d. of milled money weighs an ounce and a quarter near. Can it, therefore, be possible that one ounce of any commodity should be worth an ounce and a quarter of the self same commodity, and of exactly the same goodness ? for so is standard silver to standard silver. Indeed, one has a mark upon it, which the other has not ; but it is a mark that makes it rather more than less valuable, or if the mark, by hindering its exportation, makes it less valuable for that purpose, the melting pot can easily take it off. * * *

"Those who say bullion is risen, I desire to tell me what they mean by risen ? Any commodity, I think, is properly said to be risen, when the same quantity will exchange for a greater quantity of another thing ; but more particularly of that thing, which is the measure of commerce in the country. And thus corn is said to be risen among the English in Virginia, when a bushel of it will sell or exchange for more pounds of tobacco ; among the Indians, when it will sell for more yards of wampompeak, which is their money ; and among the English here, when it will exchange for a greater quantity of silver than it would before. Rising and falling of commodities are always between several commodities of distinct worths. But nobody can say that tobacco (of the same goodness) is risen in respect

of itself. One pound of the same goodness will never exchange for a pound and a quarter of the same goodness. And so it is in silver : an ounce of silver will always be of equal value to an ounce of silver : nor can it ever rise or fall, in respect of itself : an ounce of standard silver can never be worth an ounce and a quarter of standard silver : nor one ounce of uncoined silver exchange for an ounce and a quarter of coined silver : the stamp cannot so much debase its value. Indeed, the stamp, hindering its free exportation, may make the goldsmith (who profits by the return of his money) give one 120th, or one 60th, or perhaps sometimes one 30th more, that is 5s. 2½d., 5s. 3d., or 5s. 4d. the ounce of coined silver for uncoined, when there is need of sending silver beyond seas ; as there always is, when the balance of trade will not supply our wants, and pay our debts there. But much beyond this the goldsmith will never give for bullion, since he can make it out of coined money at a cheaper rate.

"It is said bullion is risen to 6s. 5d. the ounce, i.e., that an ounce of uncoined silver will exchange for an ounce and a quarter of coined silver. If any one can believe this, I will put this short case to him. He has of bullion, or standard, uncoined silver, two round plates, each of an exact size and weight of a crown piece : he has besides, of the same bullion a round plate of the weight and size of a shilling, and another yet less, of an exact weight and size of a three-pence. The two great plates being of equal weight and fineness, I suppose he will allow to be of equal value, and that the two less, joined to either of them make it one-fifth more worth than the other is by itself, they having all three together one-fifth more silver in them. Let us suppose then, one of the greater, and the two less plates to have received the next moment (by miracle, or by the mill, it matters not how) the mark, or stamp, of our crown, our shilling, and our three-pence : can anybody say, that now they have got the stamp of our mint upon them, they are so fallen in value, or the other unstamped piece so risen, that that unstamped piece, which a moment before was worth only one of the other pieces, is now worth them all three ? Which is to say, that an ounce of uncoined silver is worth an ounce and a quarter of coined. This is what men would persuade us, when they say that bullion is raised to 6s. 5d. (of lawful money) the ounce, which I say is utterly impossible. Let us consider this a little further, in another instance. The present milled crown pieces, say they, will not exchange for an ounce of bullion, without the addition of a shilling, and a three-pence of weighty coin added to it. Coin but that crown piece into 6s. 3d., and then they say it will buy an ounce of bullion, or else they give up their reason and measure of raising the money. Do that which is allowed to be equivalent to coining of a present milled crown-piece into 6s. 3d., viz., call it 75 pence, and then also it must by this rule of raising, buy an ounce of bullion. If this be so, this self-same milled crown-piece will, and will not, exchange for an ounce of bullion. Call it sixty-pence, and it will not : the very next moment call it seventy-five-pence, and it will. I am afraid nobody can think change of denomination has such power."

165. Locke then goes through each of Lowndes's

arguments and proposals one by one, and gives them such a refutation as would have delighted the heart of Chillingworth. Among other things, he says,—“It is true what Mr. Lowndes observes here, the importation of gold, and the going of guineas at 30s., has been a great prejudice and loss to the kingdom. But that has been wholly owing to our clipped money, and not at all to our money being coined at 5s. 2d. the ounce; nor is the coining of our money lighter the cure of it. The only remedy for that mischief, as well as a great many others, is the putting an end to the passing of clipped money by tale, as if it were lawful coin.”

166. To Lowndes's doctrine that raising the coin by making it more in tale, would make it more abundant for general use, Locke says—“Just as the boy cut his leather into five quarters (as he called them) to cover his ball, when cut into four quarters it fell short; but after all his pains, as much of his ball lay bare as before; if the quantity of coined silver employed in England, fall short, the arbitrary denomination of a greater number of pence given to it, or, which is all one, to the several coined pieces of it, will not make it commensurate to the size of our trade, or the greatness of our occasions. This is as certain, as that if the quantity of a board, which is to stop a leak of a ship fifteen inches square, be but twelve inches square, it will not be made to do it, by being measured by a foot which is divided into fifteen inches, instead of twelve, and so having a larger tale, or number of inches in denomination given to it.

“This, indeed, would be a convincing reason if sounds would give weight to silver, and the noise of a greater number of pence (less in quantity proportionably as they are more in number) were a larger supply of money. * * *

“The necessity of trust and bartering is one of the many inconveniences springing from the want of money. This inconvenience the multiplying arbitrary denominations will no more supply, nor any ways make our scarcity of coin commensurate to the need there is of it, than if the cloth which was provided for clothing the army, falling short, one should hope to make it commensurate to that need there is of it, by measuring it by a yard one-fifth shorter than the standard, or changing the standard of the yard, and so getting the full denomination of yards, necessary according to the present measure. For this is all that will be done by raising our coin, as is proposed. All it amounts to is no more but this, viz., That each piece, and consequently our whole stock of money, should be measured and denominated by a penny one-fifth less than the standard. * * *

“The increase of denomination does, or can do nothing in the case, for it is silver by its quantity and not denomination, that is the price of things and measure of commerce; and it is the weight of silver in it, and not the name of the pieces that men estimate commodities by, and exchange them for.

“If this be not so, when the necessity of our affairs abroad, or ill husbandry at home, has carried away half our treasure, and a moiety of our money is gone out of England; it is but to issue a proclamation that a penny shall go for two-pence, sixpence for a shilling, half-a-crown

for a crown, &c., and immediately, without any more ado, we are as rich as before. And when half the remainder is gone, it is but doing the same thing again, and raising the denomination anew, and we are where we were, and so on; whereby supposing the denomination raised 15-16, every man will be as rich with an ounce of silver in his purse, as he was before when he had 16 ounces there, and in as great plenty of money, able to carry on his trade without bartering; his silver, by this short way of raising, being changed into the value of gold: for when silver will buy 16 times as much wine, oil, and bread, &c., to-day, as it would yesterday, (all other things remaining the same, but the denomination) it hath the real worth of gold.

“This, I guess, everybody sees cannot be so, and yet this must be so, if it be true that raising the denomination one fifth, can supply the want, or one jot raise the value of silver in respect of other commodities, i. e., make a less quantity of it to-day, buy a greater quantity of corn, oil, and cloth, and all other commodities than it would yesterday, and thereby remove the necessity of bartering. For if raising the denomination can thus raise the value of coin in exchange for other commodities, one fifth, by the same reason it can raise it two fifths, and afterwards three fifths, and again if need be four fifths, and as much further as you please. So that by this admirable continuance of raising our coin we shall be rich, and as well able to support the charge of the Government, and carry on our trade without bartering, or any other inconvenience for want of money, with 60,000 ounces of coined silver in England, as if we had six, or 60 millions. If this be not so, I desire any one to shew me why the same way of raising the denomination, which can raise the value of money in respect of other commodities, one fifth, cannot when you please, raise it another fifth, and so on? I beg to be told where it must stop, and why at such a degree, without being able to go further.

“It must be here taken notice of, that the raising I speak of here, is the raising of the value of our coin in respect of other commodities (as I call it all along) in contradistinction to raising the denomination. The confounding of these in discourses concerning money, is one great cause, I suspect, that this matter is so little understood, and so often talked of with so little information of the hearers.

“A penny is a denomination no more belonging to eight than to eighty, or to one single grain of silver: and so it is not necessary that there should be 60 such pence, no more nor less, in an ounce of silver, i. e. twelve in a piece called a shilling, and sixty in a piece called a crown: such like divisions being only extrinsic denominations, are everywhere perfectly arbitrary. For here in England there might as well have been twelve shillings in a penny, as twelve pence in a shilling, i. e. the denomination of the less pence might have been a shilling, and of the bigger a penny. Again, the shilling might have been coined ten times as big as the penny, and the crown ten times as big as the shilling; whereby the shilling would have but tenpence in it, and the crown an hundred. But this, however ordered, alters not one jot the value of the ounce of silver, in respect of other things, any more than it does its weight. This

raising being but giving of names at pleasure to aliquot parts of any piece, viz.: that now the 60th part of an ounce of silver shall be called a penny, and to-morrow that the 75th part of an ounce shall be called a penny, may be done with what increase you please. And thus it may be ordered by a proclamation, that a shilling shall go for twenty-four pence, and half-crown, for sixty instead of thirty pence, and so of the rest. But that an half-crown should be worth or contain sixty such pence, as the pence were before the change of denomination was made, that no power on earth could do. Nor can any power but that which can make the plenty or scarcity of commodities, raise the value of our money their double in respect of other commodities, and make that the same piece or quantity of silver, under a double denomination, shall purchase double the quantity of pepper, wine, or lead, an instant after such proclamation, to what it would do an instant before. If this could be, we might, as every one sees, raise silver to the value of gold, and make ourselves as rich as we pleased. But it is but going to market with an ounce of silver of one hundred and twenty pence, to be convinced that it will purchase no more than an ounce of silver of sixty pence; and the ringing of the piece will as soon purchase more commodities, as its change of denomination, and the multiplied name of pence, when it is called six score instead of sixty."

167. It may, perhaps, appear to some that the arguments put forward by Locke, are so simple and convincing, that it is almost a waste of ingenuity and labor to dwell on them at such length. But unfortunately this is not so. The confusion of idea between the *name* and the *value* of a coin, is one which is but too prevalent even at the present day. It seems almost incredible that an able man like Mr. Lowndes could perceive that debasing the standard of the coin, by putting less silver and more alloy, was a public fraud, and an injury to all creditors, and yet that he should be totally incapable of perceiving that raising the denomination of the coin, was exactly the same thing in principle as debasing the standard. In each case the quantity of pure silver in a crown or a shilling was diminished. Nevertheless this fallacy is deeply seated even at the present day. It was, moreover, exactly the same fallacy, under another form, which blinded and deluded the Bank of England, the Government, and the House of Commons in 1811, into their insane vote on the doctrine of the Bullion Report, that the Bank Note was depreciated. But alas! Instead of a Montague willing to learn wisdom from the counsels of a Locke, there was only a Vansittart, who refused to listen to Horner and Canning, and we are still smarting for his infatuation.

168. The Bank of England had been founded in 1694 (*BANKING IN ENGLAND*), and in the summer of 1695, was in great credit and prosperity. We have a pamphlet written by Mr. Michael Godfrey, the Deputy Governor, in June, 1695, which is of considerable importance in regard to the theory of the currency, and some allegations of the Bullion Report (*BULLION REPORT*). William III. had found his resources so much strengthened by the foundation of the Bank, that he was able to assume the offensive in the war which was then raging with France. In July, 1695, he undertook the siege of Namur, and Mr. Godfrey went

over to him to arrange some matters of business. During a heavy cannonade he ventured too near the king, and was killed by his side. His pamphlet is written in a strain of the warmest congratulation on the success of the Bank. We have given an abstract of this pamphlet elsewhere, (*GODFREY*), and we only notice here that he asserts that in June, 1695, the Bank notes were all payable on demand. At this period, and for some time before, we have already seen that guineas were current at 30s. each, and the exchange with Holland was twenty-five per cent. against England, both of which circumstances all contemporary writers, except a very few, attributed to the *badness of the silver coin*, and to that only. There are volumes of pamphlets in the Board of Trade, which we have read, and they all prove the fact of the depreciation of the silver money, or the apparent rise in guineas, to have occurred in the spring of 1695, and not one ever makes the slightest allusion to the notion that it was caused by the issues of the Bank of England.

169. There is one point, however, on which there are many concurring assertions:—That the bad state of the coinage was greatly owing to the bad practices of the goldsmith-bankers. It is charged again and again against them, that they were in the habit of clipping the money deposited with them by their customers, and putting it into circulation again. We might hesitate to believe this of men of such respectability as our modern bankers generally are, but we must reflect that generally speaking, the bankers of these days were not so eminent as those of our own, and we see that so respectable an authority as Mr. Godfrey specifically charges them with it. (*GODFREY*.)

170. Burnet says, (*History of his own Times*, vol. iv., p. 252, *edit.* 1823,) that there was a party in the country who were moved with great jealousy by the credit of the Bank, and did all they could to ruin it, but their machinations were rejected with indignation by both houses. He says that at the same period there were two sets of money, one milled, which could not be practised upon, the other not so, which was clipped, and so much so, that at last it was diminished to less than half its proper weight. When this had gone on for some time, the king was advised to issue a proclamation to make it current by weight, and not by tale, but it was strongly opposed in the council. The badness of the money was then very visible; guineas, which were equal in value to 21s. 6d. in silver, rose to 30s. that is to say, 30s. sank to 21s. 6d. As the deterioration became worse, Lord Somers again proposed that a proclamation should be issued, to make money current by weight and not by tale. The king was also of that opinion, but the rest of the council were unanimously against it; and so this proposition was laid aside, which would have saved the nation above a million of money, for when people saw that Parliament would receive the clipped money by tale, the clipping went on worse than ever.

171. Parliament met in November, 1695, and in the speech from the throne, the king called the attention of the House to the bad state of the coin, and requested them to devise a remedy.

On the 30th of November, the subject was debated. On the 1st of that month, Montague (afterwards Lord Halifax) had been appointed Chancellor of the Exchequer. The House in acknow-

ledgment of the paragraph in the king's speech, respecting the ill state of the coinage, appointed a Committee to consider of a fund to make good the deficiency of the clipped money. Montague brought before the House the question whether it was necessary or expedient to recoin the silver money? The country party, in the hopes of embarrassing the Government, held the negative. The Chancellor of the Exchequer maintained that, in consequence of the bad state of the coinage, the foreign exchanges were heavily against the country. That, by reason of this, the supplies raised to maintain the army were curtailed in consequence of the adverse exchange. That from the badness of the coin guineas had risen to 30s., and foreign gold in proportion. That in consequence of this great quantities of foreign gold were imported, which could not be exported at the same price. The government carried that the money should be recoined by a majority of sixty.

172. The next question was, whether the several denominations of the new money should have the same weight and fineness as the old? or whether the standard should be raised? This question produced many debates. The opposition adopted Lowndes's ideas, that the price of an ounce of silver bullion had risen to 6s. 3d., and therefore, the standard of the coin should be raised accordingly—that raising the standard would prevent exportation, and melting it down, and would encourage people to bring plate and bullion to the mint to be coined.

The government replied, using the arguments so admirably set forth by Locke, of which we have given a few extracts above, in order that it may be clearly seen to whom their merit is due. We need not encroach on our space, and the reader's patience, by repeating them. The Chancellor concluded by moving that in coining the new money, the House would not depart from the ancient standard either in weight, fineness, or denomination. This resolution was also carried by 224 to 114.

173. The next question was—Who was to bear the loss attending the new coinage? Many urged, and with some plausibility, that the holders of the money should bear the loss, as had frequently been done before. It was resolved, however, that the public should bear it, and as the debased state of the coinage was due to the negligence of the government, it was right that the loss should fall on the public. The sum of £1,200,000 was appropriated for the purpose, and in order to meet it; a window tax was devised, which has been the fruitful source of misery, disease, and death, and has only been abolished within the last few years.

174. The House addressed the King to issue a proclamation forbidding the circulation of clipped money after certain dates. The king assented, and on the 20th December it was ordered that after the 1st of January, 1696, clipped crowns and half-crowns should not be taken by any one except the collectors of taxes, and after a short time, they were not to be taken in London, or within forty miles. The other coins were also called in in a similar manner.

The time named in the proclamation for receiving the clipped money was so short, that all trades were thrown into confusion. People refused to

take the clipped money for fear it might be left on their hands. The different qualities of the coins current together added much to the confusion, for while the hammered money, and pieces not clipped within the ring, were allowed to pass, no one was willing to make payments in new money, and therefore as fast as it issued from the Mints and Exchequer, it was hoarded up by the first receivers. Much of it was exported to purchase gold, which at this time was very profitable. Some Acts were passed regulating the coin, which were not of much avail.

175. Evelyn says in his Diary; "1695-6. 12 Jan. Great confusion and distraction by reason of the clipped money, and the difficulty found in reforming it.—23. They now began to coin new money."

176. Having provided for the recoinage, the House of Commons then began a most useless and ineffectual meddling with the price of guineas. As long as the silver coinage continued in its debased state, no human power could lower the price of guineas; as soon as the silver coin was reformed, no human power could prevent them falling. Several petitions were presented to the House against their interference with the price of guineas. (*Commons Journals*, Vol. XI. p. 445). It is strange that Montague should so far have deserted the lessons of his great master Locke. If an Act of Parliament could alter the price of guineas—where was the use of the coinage? If the coinage would effect the purpose, where was the use of the Act of Parliament? It was carried by a majority of 162 to 131, on the 15th February, 1696, that guineas should not pass for more than 28s. On the 28th, it was resolved, by a majority of 194 to 140, that after the 26th March, they should be reduced to 26s. On the 26th March, it was voted by a majority of 180 to 135, that after the 10th of April, they should be reduced to 22s., and heavy penalties were enacted against all who should deal in them at higher rates after that date. It was further ordered that clipped money should be received in payment of taxes till the 4th of May, in advances to government till the 1st July, and after the 1st February, 1697, should cease to be current at all. At this time, although both gold and silver were legal tender, yet the silver coin was considered the standard currency, and gold only as subsidiary. Debts were considered to be contracted in silver, and when this great disarrangement of the relative value of the gold and silver took place, it was considered a great public grievance. All the heavier pieces were culled out, and sent to Holland, where guineas and bullion might be bought for 22s., which passed for 30s. in England, the consequence was a steady drain of silver from England, and a continued influx of gold. The Act of Charles II. gave every one the right to have his bullion coined at the Mint free of expense, and many persons had availed themselves of that privilege. By a return presented to the Commons, it appeared that since Lady-day, 1695, up to February, 1696, guineas to the amount of £721,280 had been coined for 149 persons. An Act was passed to take off this privilege, and to prohibit the importation of guineas and half-guineas. Statute, 1696. c. 13.

177. The success of the Bank of England raised up a host of enemies, who tried all they

could to ruin it. During this period, the shares had fallen from £107 to £85. The difficulties of the recoinage enabled its enemies to concert a conspiracy against it, which was successful. All this time it had received the degraded coin at its nominal value. Its notes were payable to bearer on demand. As soon as the new coin came out they were bound to pay them in full weighted money. That is, for every seven ounces of gold they had received they were bound to pay twelve. Moreover the pressing necessities of the king had unfortunately induced him to listen to the promises of the schemers who got up the Land Bank, and an Act for establishing it passed in April. This was justly considered as a serious blow to the Bank of England.

178. The Act limited the 4th of May, as the last day for receiving the clipped money in payment of taxes. Multitudes of course flocked in at the last day to pay in their clipped money. The new money had scarcely begun to come out, and what had been issued, had by the unfortunate permission given to the good and bad coin to circulate together, been hoarded or exported. The goldsmiths and bankers, and other enemies of the Bank, saw a great opportunity to injure it. They collected its notes from all quarters. One goldsmith alone had £30,000. On the 5th of May, between 12 and 1 o'clock, they marched in a body to the Bank, and demanded payment of them on the spot. The Directors, seeing the nature of the proceeding, refused payment, and left the holders of their notes to their remedy at law. They, however, continued the payment of the usual trade demands. This, however, could not continue. They were soon unable to cash even the notes presented in the ordinary course of business. They then made a call of 20 per cent. on their proprietors, and were obliged to adopt a partial suspension of cash payments. They gave notice they could only pay 10 per cent. on their notes once a fortnight. During the first week they paid £15,000 in broad and milled money. The treasury did all it could to assist them, and large sums were coined and paid into the Bank. The Bank advanced the rate of interest allowed on their bills, from 2d. to 3d. a day. They borrowed £240,000 from their own proprietors, for six months at 6 per cent., and drew bills for £100,000 upon the Bank of Amsterdam.

179. Evelyn says, "13th May, 1696. Money still continuing exceedingly scarce, so that none was paid or received, but all was on trust, the Mint not supplying for common necessities.

"11th June. Want of current money to carry on the smallest concerns, even for daily provisions in the markets. Guineas lowered to 22s., and great sums daily transported to Holland, where it yields more, and other treasure sent to pay the armies, and nothing considerable coined of the new, and now only current stamp, cause such a scarcity that tumults are every day feared, nobody paying or receiving money. Banks and lotteries every day set up.

"26th July. So little money in the nation that Exchequer tallies on the best fund in England, the Post Office, nobody would take at 30 per cent. discount.

"3rd August. The Bank lending the £200,000 to pay the army in Flanders, that done, nothing against the enemy had so exhausted the treasure

of the nation, that one could not have borrowed money under 14 or 15 per cent. on bills (i.e., Bank of England Notes) or on Exchequer tallies under 30 per cent."

180. It is said in Narcissus Luttrell's diary that between the 17th of January and the 24th of June, there were brought into the Exchequer in clipped money £4,706,003 18s. 6½d.

181. We have not been able to find when Bank Notes first fell to a discount. But in Luttrell's diary it is said that on the 28th of July, they were at a discount of £10 per cent. On the 25th of August, he says that they were at £15 per cent. discount. On the 12th of September, at £18 per cent. discount.

182. Mints had been set up at various towns in the country to hasten the substitution of good money for bad. During the summer, these had been constantly at work, and by the autumn a considerable supply had been circulated. The natural effect followed the restoration of the medium of payment to its proper standard. The exchanges which had been 25 per cent. against England, immediately turned in her favor. Luttrell says, on the 8th of October, "The price of most foreign commodities here begins to fall in expectation of a peace, and whereas sometime since we gave £25 per cent. to remit money to Holland, they now give us £4 per cent. for money in England; so 'tis plain the balance is on our side."

Luttrell says that on the 12th of October, Bank Bills were discounted at £12 per cent. discount for ready money, and the Bank allowed 6 per cent. for six months for all sealed bills of £100.

183. It is not for us to tell here how miserably the Land Bank failed to supply the king with the resources it had promised, and its ruinous effects on public credit. We are precluded from entering upon the political history of the period, and shewing how the fortunes of the nation were affected by the state of the coinage. All this is set forth with matchless skill in Macaulay, whose account of the years 1695, 1696, and 1697 should be read in connection with the preceding details. The monetary difficulties of England were so great that the eyes of all Europe were turned upon her, with the fear, or the hope, that the great alliance against France must be dissolved.

184. It was no doubt one of the greatest crises that this country has gone through, but fortunately for her, there were men at the head of affairs who were found equal to the occasion. Parliament met on the 20th of October, 1696, and the king congratulated the nation upon having passed through the year without any disorders at home, or reverses abroad, considering the great disappointment in the funds voted at their last meeting, and the difficulties arising from the recoinage of the money. Their enemies had hoped that these misfortunes would have proved fatal to them, but though negotiations had been talked of for a general peace, the only way to treat with France was sword in hand. The king then brought to their notice the frightful state of public credit, and earnestly entreated Parliament to take measures to restore it.

185. The hopes of the enemies of England were scattered to the winds. The statesmen and the parliaments of that period are not now held

in any very high estimation, yet on that day they set such an example as might be envied by the greatest assembly of any age or country. Notwithstanding the terrible internal sufferings produced by eight years' war, and the bad state of the coinage, they unanimously voted that they would support the king and his government against all his enemies, both at home and abroad, and would effectually assist him in carrying on the war with France.

186. They then voted without a division:—That they would not alter the standard of the gold and silver in fineness, weight, or denomination, and that they would make good all parliamentary funds since his Majesty's accession to the crown that have been made credits for loan from the subject. They also repealed the absurd laws against the importation of guineas and the coining of gold.

187. It was indeed a great day for England, and one that may well put to shame the conduct of her parliament 116 years later. In the next session the amount of arrears in every branch in the public service was laid before them, in consequence of the total failure of some, and the partial failure of other funds appropriated to them. It was a frightful sum—£6,000,459—more than all the current coin in the kingdom was supposed to be—more, probably, at that period than £70,000,000 would be at the present day. Exchequer tallies were at forty, fifty, and sixty per cent. discount. But directly the House of Commons pledged itself to maintain their faith with the public creditor, they began to rise.

188. The country had passed through the agony of its crisis. As soon as the vote was passed, the new milled money came forth from thousands of hoards. Bank notes, which had been at eighteen per cent. discount the day before the meeting of parliament, rose to twelve discount, and its shares rose too. The exchanges, as we have already seen above, as well as by the evidence of Mr. Cary (CARY), were now in favor of this country, in consequence of the medium of payment being restored to its true standard.

189. On the 27th October, the House resolved that all hammered money should pass current at 5s. 2d. per ounce; that until the 1st of January, it should be purchased at all the mints, and received in payment of taxes, at 5s. 8d. per ounce. They then anxiously debated the state of credit. On the 12th November, they voted that the Bank of England should continue for the eleven years, for which it was originally established, and that no other Bank should be established by Parliament during that period. This was carried by 200 to 124. By the beginning of December, the five country mints had already coined £200,000, and they had £400,000 in clipped money and plate waiting to be coined. The House ordered a bill to be brought in to establish bills of credit, that for goods bought under £10, the buyer should give his note of hand for payment, which should be transferable from hand to hand, during the scarcity of money. This plan had long been advocated by Sir Josiah Child. (CHILD.) On December 26, Bank notes were at £17 per cent. discount. On the 1st of February, 1697, they were at £19 per cent. discount.

190. Negotiations had been going on between the House and the Bank of England for restoring its credit. At last, on the 3rd of February, 1697,

the House agreed that the Bank might increase its capital stock by an amount not exceeding five millions, of which one fifth might be paid in their own notes, and four-fifths in Exchequer tallies. Several other provisions were also made for preventing the recurrence of such a calamity as the failure of the Land Bank had caused. (BANKING IN ENGLAND.) In pursuance of this Act, the capital stock of the Bank was increased by the sum of £1,001,171 10s. of which £200,000 were paid in its own depreciated notes, taken at their full value, and £800,000 in depreciated Exchequer tallies. On the 19th February, 1697, Bank Notes were at £21 discount, and on the 20th, at £24 discount. On the 23rd of March, they were at £23 10s. discount.

191. The Act for increasing the capital of the Bank received the royal assent on the 1st of April, and the value of its notes immediately rose to £18 discount, at which they continued till the beginning of June, when they rose to £13 discount. On the 26th of July, they were at £10 10s. discount. On the 3rd of August, they were at £7 discount, and the shares rose from 60 to 72. On the 26th of August, the notes were at £3 10s. discount, and the shares rose to 83. On the 28th notes were at £2 discount, and the stock at 92. On the 18th September, the notes were at £1 discount, and bank stock at 96. And on the 30th November, the notes were at par. By this time upwards of £7,000,000 of money had been coined at the various mints in the country.

192. Such is the history of this great monetary crisis, and whoever will take the trouble to compare it with the account of it given in the Bullion Report, will at once perceive what an astonishing mass of chronological errors the framers of that Report have fallen into. (BULLION REPORT.) The Bullion Report says that the details given in it are all very fully mentioned in authentic tracts published at the time. We, having read scores of tracts published at the time, make bold to say that there is not one single tract published at the time which will countenance the assertions of the Report. We also observe that Bank Notes were received in payment of the new subscription to the Bank; thus its own depreciated notes which were CREDIT, were thus turned into permanent CAPITAL, an operation which is wholly inexplicable according to the current notions on the subject of Credit, but which is fully explained under CREDIT.

193. The political benefits which followed this great restoration of the coinage are beyond the purpose of this work. In 1707, the union of the kingdoms necessitated a new coinage. At the same time the relative value of the gold and silver coins began to differ from the market value of the two metals, and as silver was underrated, it became very scarce. It is much to be lamented that the government, having adopted Locke's arguments in favour of the maintenance of the standard, did not also adopt his argument with respect to the necessity of there being only one standard of value. It was perfectly conclusive, and the evils, which he had shewn must necessarily follow from this economic error of having two measures of value, manifestly displayed themselves. In 1708, the government offered a premium of 2½d. per ounce, to every one who brought foreign silver coin, or plate of any sort,

of standard fineness, to the Mint to be coined. This, however, was quite ineffectual, and as matters grew worse every day, the government referred the matter to Sir Isaac Newton, who had for many years been at the head of the Mint, to report upon.

194. Sir Isaac Newton said in his Report, (*Parl. Hist. VII. 526*), "That a pound weight Troy, of gold, 11 ozs. fine, and 1 oz. alloy, is cut into 44½ guineas; and a pound weight of silver, 11 ozs. 2 dwts. fine, and 18 dwts. alloy, is cut into 62 shillings; and, according to this rate, a pound weight of fine gold is worth 15 pounds weight 6 ozs. 17 dwts. and 5 grns. of fine silver, reckoning a guinea at £1 1s. 6d. in silver money. But silver in bullion, exportable, is usually worth 2d. or 3d. per ounce more than in coin; and if as a medium such bullion of standard alloy be valued at 5s. 4½d. per ounce, a pound weight of fine gold will be worth but 14 lbs. 11 ozs. 12 dwts. 9 grs. of fine silver in bullion; and, at this rate, a guinea is worth but so much silver as would make 20s. 8d. When ships are lading for the East Indies, the demand of silver for exportation raises the price to 5s. 6d. or 5s. 8d. per ounce, or above; but I consider not these extraordinary cases.

"A Spanish pistole was coined for thirty-two rials, or four pieces of eight rials, usually called pieces of eight, and is of equal alloy, and the sixteenth part of the weight thereof; and a Doppio Moeda of Portugal was coined for ten crusados of silver, and is of equal alloy, and the sixteenth part of the weight thereof. Gold is therefore in Spain and Portugal, of sixteen times more value than silver of equal weight and alloy; according to the standard of those kingdoms; at which rate a guinea is worth 22s. 1d.: but this high price keeps their gold at home in good plenty, and carries away the Spanish silver into all Europe; so that at home they make their payments in gold, and will not pay in silver without a premium: upon the coming in of a Plate fleet the premium ceases or is but small; but as their silver goes away and becomes scarce, the premium increases, and is most commonly about six per cent., which being abated, a guinea becomes worth about 20s. 9d. in Spain or Portugal.

"In France, a pound weight of fine gold is reckoned worth fifteen pounds weight of fine silver; in raising or falling their money, their kings' edicts have sometimes varied a little from this proportion, a little in excess or defect; but the variations have been so little, that I do not here consider them. By the edict of May, 1709, a new pistole was coined for four new louis, and is of equal alloy, and the fifteenth part of the weight thereof, except the errors of their mints; and by the same edict, fine gold is valued at fifteen times its weight of fine silver; and at this rate a guinea is worth 20s. 8½d. * * *

"The ducats of Holland and Hungary, and the Empire, were lately current in Holland among the common people, in their markets and ordinary affairs, at five guilders in specie, and five stivers; and commonly changed for so much silver moneys in three-guilder pieces and guilder pieces, as guineas are with us for 21s. 6d. sterling; at which rate a guinea is worth 20s. 7½d.

"According to the rates of gold to silver in Italy, Germany, Poland, Denmark, and Sweden,

a guinea is worth about 20s. and 7d., 6d., 5d., or 4d., for the proportion varies a little within the several governments in these countries. In Sweden, gold is lowest in proportion to silver, and this hath made that kingdom, which formerly was content with copper money, abound of late with silver, sent thither (I suspect) for naval stores.

"In the end of King William's reign, and the first year of the late queen, when foreign coins abounded in England, I caused a great many of them to be assayed in the Mint, and found by the assays, that fine gold was to fine silver in Spain, Portugal, France, Holland, Italy, Germany, and the northern kingdoms, in the proportion above mentioned, errors of the mint excepted.

"In China and Japan, one pound weight of fine gold is worth but 9 or 10 pounds weight of fine silver; and in East India it may be worth 12; and this low price of gold in proportion to silver, carries away the silver from all Europe.

"So then by the course of trade and exchange between nation and nation in all Europe, fine gold is to fine silver as 14 4-5, or 15 to one; and a guinea at the same rate is worth between 20s. 5d. and 20s. 8½d.; except in extraordinary cases, as when a Plate fleet is just arrived in Spain, or ships are lading here for the East Indies; which cases I do not here consider. And it appears by experience as well as by reason, that silver flows from those places where its value is lowest in proportion to gold, as from Spain to all Europe, and from all Europe to the East Indies, China, and Japan; and that gold is most plentiful in those places in which its value is highest in proportion to silver, as in Spain and England.

"It is the demand for exportation which hath raised the price of exportable silver about 2d. or 3d. in the ounce above that of silver in coin, and hath thereby created a temptation to export, or melt down, the silver coin rather than give 2d. or 3d. more for foreign silver; and the demand for exportation arises from the higher price of silver in other places than in England, in proportion to gold; that is, from the higher price of gold in England than in other places in proportion to silver, and therefore may be diminished by lowering the value of gold in proportion to silver. If gold in England, or silver in East India, could be brought down so low as to bear the same proportion to one another in both places, there would be here no greater demand for silver than for gold to be exported to India. And if gold were lowered only so as to have the same proportion to the silver money in England, which it hath to silver in the rest of Europe, there would be no temptation to export silver rather than gold to any other part of Europe. And to compass this last, there seems nothing more requisite than to take off about 10d. or 12d. from the guinea; so that gold may bear the same proportion to the silver money in England, which it ought to do by the course of trade and exchange in Europe. But if only 6d. were taken off at present, it would diminish the temptation to export, or melt down the silver coin. And by the effects, would show hereafter better than can appear at present, what further reduction would be most convenient for the public.

"In the last year of King William, the dollars of Scotland, worth about 4s. 6½d., were put away

in the North of England for 5s., and at this price began to flow in upon us. I gave notice thereof to the Lords Commissioners of the Treasury, and they ordered the collectors of taxes to forbear taking them, and thereby put a stop to the mischief.

"At the same time, the louis-d'ors of France, which were worth but 17s. 3d. a piece, passed in England at 17s. 6d. I gave notice thereof to the Lords Commissioners of the Treasury; and his late Majesty put out a proclamation that they should go but at 17s.; and thereupon they came to the Mint, and £1,400,000 were coined out of them: and if the advantage of 5½d. in a louis-d'or, sufficed at that time to bring into England so great a quantity of French money, and the advantage of three farthings in a louis-d'or to bring it to the mint, the advantage of 9½d. in a guinea, or above, may have been sufficient to bring the great quantity of gold which hath been coined in these last fifteen years, without any foreign silver.

"Some years ago, the Portugal moedors were received in the West of England at 28s. a piece. Upon notice from the Mint, that they were worth only about 27s. 7d., the Lords Commissioners of the Treasury ordered their receivers of taxes to take them at no more than 27s. 6d. Afterwards many gentlemen in the west sent up to the Treasury a petition, that the receivers might take them again at 28s., and promised to get returns for money at that rate; alleging that when they went at 28s., their country was full of gold, which they wanted very much. But the Commissioners of the Treasury, considering that at 28s. the nation would lose 5d. a piece, rejected the petition. And if an advantage of 5d. in the 28s. did pour that money in upon us, much more hath an advantage to the merchant of 9½d. in a guinea, or above, been able to bring into the Mint great quantities of gold, without any foreign silver, and may be able to do so still, till the cause be removed.

"If things be let alone till silver money be a little scarcer, the gold will fall of itself; for people are already backward to give silver for gold, and will in a little time refuse to make payments in silver without a premium, as they do in Spain; and this premium will be an abatement of the value of the gold; and so the question is, whether gold shall be lowered by the government, or let alone till it falls of itself, by the want of silver money.

"It may be said, that there are great quantities of silver in plate, and if the plate were coined, there would be no want of silver money. But I reckon that silver is safer from exportation in the form of plate than in the form of money, because of the greater value of the silver and fashion together; and therefore I am not for coining the plate, till the temptation to export the silver money, which is a profit of 2d. or 3d. an ounce, be diminished; for as often as men are necessitated to send away money for answering debts abroad, there will be a temptation to send away silver rather than gold, because of the profit, which is almost 4 per cent.; and for the same reason foreigners will choose to send hither their gold rather than their silver."

196. Mr. Aislachie, the Chamcellor of the Exchequer, brought the subject of the great scarcity of silver coin before the House on the 21st of

December, 1717, and was seconded by Mr. Caswall, who gave details of the different relative values gold and silver coin had borne with respect to each other, according to the plenty or scarcity of each, and said that the over-valuation of gold in the current coins of Great Britain, had caused the exportation of great quantities of silver specie. To prove this, he laid open a clandestine trade which had been carried on for many years by the Dutch, Hamburgers, and other foreigners, in concert with the Jews and other traders here, which consisted in exporting silver coins, and importing gold in lieu thereof, which being coined into guineas at the Tower, near 15d. was got by every guinea, which amounted to about 5 per cent., and as these returns might be got five or six times in the year, considerable profits were made by it. In his opinion the only way of checking this, was to lower the price of guineas and other gold specie.

197. Sir Isaac Newton had shewn that the true value of the guinea, according to the market values of gold and silver at that time, was 20s. 8d. The House, however, did not adopt his recommendation to its full extent, but they addressed the Crown to issue a proclamation to make guineas current at 21s. In accordance with this, the king issued a proclamation on the 22nd December, 1717, making guineas current at 21s., and reducing the other gold coins for 23s. 6d. and 25s. 6d. to 23s. and 25s. each.

198. This was the last alteration made in the relative values of gold and silver coin, and now, in the language of the Mint, the price of gold was fixed at £3 17s. 10½d. an ounce, which is so sore a puzzle to many persons. This alteration in the value of guineas created some alarm that it might be further reduced, and caused considerable confusion in trade, but in January, 1718, both Houses of Parliament passed resolutions that they would not alter the standard of the gold and silver coins of the kingdom in fineness, weight, or denomination.

199. By the reduction of the price of the guinea, the value of gold to silver was fixed at $15\frac{1250}{65000}$ to 1, but as in Holland and France the rate was 14½ to 1, a profit still remained on exporting silver and importing gold. Thus gold became the cheapest medium in which to make payments, and by this means during the course of the last century, it became gradually an understood thing in commerce that gold was the standard of value. This custom was finally adopted as law in 1816.

200. Up to 1792, a considerable quantity of the old hammered gold pieces of James I., Charles I., and Charles II., had been current along with the guineas. These were the old units originally struck to represent 20s., but which were now current at 25s. All this old gold was now called in at the rate of £4 1s. per ounce, troy. Many of the coins of Edward VI. were still in circulation. These were all called in at the same rate. By these measures all the old hammered money was finally withdrawn from circulation.

201. But the old evils of clipping and counterfeiting were not put down. The introduction of the mill had given a more accurate circular form to the coin, but it was executed in such a manner, that it was still possible to file away about 9 or 12 grains of metal without much danger of dis-

covery, from the distance at which the letters were placed from the edge. The Rev. Peter Vallavine, Vicar of Monkton, says in his *Observations on the Current Coin of this Kingdom, 1742*, that the shillings were deficient from 6 to 11 per cent., and the sixpences from 11 to more than 22 per cent., and besides that, were extremely scarce.

202. It may seem somewhat remarkable that after the experience the government had had of the miseries inflicted upon the nation by suffering the coinage to fall into a degraded state, they continued to pay no attention to it. On the accession of George III., in 1763, the gold and silver money was found to be in a very bad state. The crown pieces entirely disappeared, though upwards of a million and a half of pounds had been coined since the time of William III. The half-crowns were extremely scarce, although during the same period there had been coined to the value of £2,329,370. The shillings and sixpences were in a shameful state, and had lost from a sixth to a fourth of their value. All signs of the impression on them had vanished. All the good coins had been exported, or melted, in consequence of the erroneous valuation of the gold and silver coin, and no bullion was brought to the Mint to be coined, because it would have been a great loss to do so, even although it was coined for nothing. The gold coinage was also becoming much depreciated. It was very much clipped and filed. The only remedy tried for some time, was the old futile one of issuing a proclamation against the practice. The state of the coinage continually got worse. In 1771, it was said that three-fourths of the silver in circulation was base. The guineas were sent over to Holland to be filed, and then returned and put into circulation. Even the copper coinage was as bad. A statute was passed to make counterfeiting the copper coinage felony. The sums allowed for prosecuting offences against the coinage were trebled. In 1773, it was enacted, statute 1773, c. 52, that any person to whom gold coin should be tendered which he should suspect to be counterfeit, might cut, break, or deface such piece. If it was bad, the offerer should bear the loss, if not, the person who defaced it must take it at the rate it was coined for. All the officers of the Treasury were ordered to destroy all gold coins offered them in payment, which were below a certain weight. At the same time the Bank gave notice that it would buy any quantity of such defaced coin, in parcels of not less than fifty guineas, at £3 17s. 10½d. the ounce. In 1774, an Act was passed to prevent the importation of debased and depreciated silver coins.

203. It was further enacted that no tender of the silver coin of the realm of any sum exceeding £25 at any one time, should be legal tender within Great Britain or Ireland, for more than its value by weight at the rate of 5s. 2d. per ounce. The Act was to endure till the 1st day of May 1776, and to the end of the then next session of Parliament.

204. The state of the gold coinage could no longer be overlooked. The government proposed that all the deficient gold coin should be called in and recoined. That a compensation should be made to the holders of such deficient gold coin under certain regulations; and that after the recoinage, the currency of the gold coin should in future be regulated by weight as well as by tale,

in accordance with the ancient laws of the kingdom, and that the several pieces should not be legal tender, if they were diminished by any means below that weight. The king having approved the plan, recommended to Parliament the consideration of the state of the gold coinage in very earnest terms. He said that the diminution which that coin had suffered, and the rapid progress the mischief was daily making, was truly alarming, and that it was essentially necessary for the credit and commerce of the country, that the gold coinage should be put on a good footing. Every one agreed that a re-coinage was indispensable, and had long been required to prevent the fraudulent diminution of the gold coin, which had been carried to a greater excess than had ever been known before. But it was by no means equally agreed upon whom the loss attending it should fall. According to the Act, the loss fell upon the immediate possessors of the gold coin, and these were chiefly the great money holders and bankers, and consequently it entailed a great loss on these individuals. They of course organised a strong resistance, and declared that as they were obliged to hold money for others, and had received it at its nominal value, upon the public faith, and under the sanction of government, it was oppressive and unjust to make the whole loss fall upon them, to make good to the public the immense loss they had sustained through the remissness of government, in not enforcing the laws, until the enormity reached so great a height as to be thought beyond their control.

The Minister, however, thought otherwise. The extent of the evil and the necessity for a new coinage were undeniable. The charge of injustice he did not admit. He said the loss had fallen where it could best be borne, upon those who had been gainers by the situation, and who always profited by the public money. That it was in truth a tax upon property, and upon that species of property which was exempt from many others. That if a general tax had been laid on to make good the deficiency, it would have been a very heavy charge to the public, and opened the door for innumerable frauds, as had happened in the reign of William III., on calling in and re-coining the silver money.

205. On the 13th of May, a conference was held between the two Houses of Parliament, upon the subject of the new coinage, in which they agreed, and resolved to address the King.

They agreed to advise the king that all guineas weighing less than 5 dwts., 8 grains., all half-guineas weighing less than 2 dwts. 16 grains, and all quarter guineas weighing less than 1 dwt. 8 grains should be called in and received according to the standard of the Mint, both in weight and fineness, as quickly as could be done. That the public should bear the loss arising from the deficiency and recoinage of the said guineas, provided it did not exceed the rates settled by the commissioners of the Treasury, and provided they should be offered in payment to the receivers and collectors of the public revenues, or should be brought to such places as the king might appoint for the exchange of them, within certain times. They advised the king to issue a proclamation to limit a time when such coins as were more deficient than the quantity stated should cease to be current. An Act was passed in accordance with

this address, by which all receivers of crown revenues were ordered to receive all guineas tendered to them at the value they were coined at, provided their weight did not fall below the quantity named in the proclamation. It was further resolved, that the public should bear the loss arising from the recoinage, and the Commons voted £250,000 for this purpose.

206. On the 24th of June, a proclamation was issued prohibiting all guineas under 5 dwts. 8 grs. to be current, and other gold coins in proportion. Officers were appointed at a considerable number of the principal towns, to exchange the deficient money for other money of the legal weight. The officers of the mint were ordered to prepare weights exhibiting the standard weights of the coins, and to stamp all weights brought to them, which should be found in conformity with the standard ones. This plan was immediately carried into execution, and was attended with perfect success, and no more complaints of deficient guineas were heard until the suspension of cash payments by the Bank, in 1797. The total expense, however, considerably exceeded the estimate. In 1774, £250,000 were granted for the expenses of the recoinage; in 1775, £69,770; in 1776, £92,421; and in 1778, £105,227, making £517,320 in all. Gold being now the medium of payment, the same phenomenon was exhibited as in the recoinage of the silver money in the reign of William III. The foreign exchanges had been unfavourable in consequence of the deterioration of the gold coinage. As soon as that was restored to its standard weight, the foreign exchanges became favourable.

207. From want of a clear apprehension of the great principle that good and bad coin cannot circulate together, but that the good will be exported, Adam Smith has misunderstood the real cause of the drain experienced by the Bank of England during this period. He says, (*Wealth of Nations*, B. II., C. II., *On Metallic and Paper Money*).—"By issuing too great a quantity of paper, of which the excess was constantly returning, in order to be exchanged for gold and silver, the Bank of England was, for many years together, obliged to coin gold to the extent of between £800,000 and £1,000,000 a year, or at an average, about £850,000. For this great coinage, the bank (in consequence of the worn and degraded state into which the gold coin had fallen a few years ago) was frequently obliged to purchase gold bullion at the high price of £4 an ounce, which it soon after issued in coin at £3 17s. 10½d. an ounce, losing in this manner between 2½ and 3 per cent. upon the coinage of so very large a sum. Though the bank therefore paid no seignorage, though the Government was properly at the expense of the coinage, this liberality of Government did not prevent altogether the expense of the bank.

"The Scotch banks, in consequence of an excess of the same kind, were all obliged to employ constantly agents at London to collect money for them, at an expense which was seldom below 1½ and 2 per cent. This money was sent down by the wagon, and insured by the carriers at an additional expense of ½ per cent., or 15s. in the £100. These agents were not always able to replenish the coffers of their employers so fast as they were emptied. In this case the resource of the banks was to draw upon their correspondents

in London, bills of exchange to the extent of the sum which they wanted. When these correspondents afterwards drew upon them for the payment of this sum, together with the interest and commission, some of these banks, from the distress into which their excessive circulation had thrown them, had sometimes no other means of satisfying this draught, but by drawing a second set of bills, either upon the same or upon some other correspondents in London, and the same sum, or rather bills for the same sum, would in this manner make sometimes more than two or three journeys; the debtor bank paying always the interest and commission upon the whole accumulated sum. Even these Scotch banks, which never distinguished themselves by their extreme imprudence, were sometimes obliged to employ this ruinous resource.

"The gold coin which was paid out either by the Bank of England, or by the Scotch banks, in exchange for that part of their paper which was over and above what could be employed in the circulation of the country, being likewise over and above what could be employed in that circulation, was sometimes sent abroad in the shape of coin, sometimes melted down and sold to the Bank of England at the high price of £4 an ounce. It was the newest, the heaviest, and the best pieces only, which were carefully picked out of the whole coin, and either sent abroad, or melted down at home. And while they remained in the shape of coin, these heavy pieces were of no more value than the light; but they were of more value abroad, or when melted down into bullion, at home. The Bank of England, notwithstanding their great annual coinage, found to their astonishment, that there was every year the same scarcity of coin as there had been the year before; and that notwithstanding the great quantity of good and new coin which was every year issued from the bank, the state of the coin instead of growing better and better, became every year worse and worse. Every year they found themselves under the necessity of coining nearly the same quantity of gold as they had coined the year before, and from the continual rise in the price of gold bullion, in consequence of the continual wearing and clipping of the coin, the expense of this great annual coinage became every year greater and greater. The Bank of England, it is to be observed, by supplying its own coffers with coin, is indirectly obliged to supply the whole kingdom, into which coin is continually flowing from these coffers in a great variety of ways. Whatever coin therefore was wanted to support this excessive circulation both of Scotch and English paper money, whatever vacuities this excessive circulation occasioned in the necessary coin of the kingdom, the Bank of England was obliged to supply them. The Scotch banks, no doubt, paid all of them very dearly for their own imprudence and inattention. But the Bank of England paid very dearly, not only for its own imprudence, but for the much greater imprudence of almost all the Scotch banks."

208. Whatever may have been the case with the Scotch banks at this period, Adam Smith has most clearly misunderstood the phenomena respecting the Bank of England. There is no ground whatever given for the assertion that he commences with, that the bank issued too great

an excess of paper. Whatever quantity of paper it issued, much or little, it *must* have been constantly returning upon it for payment in gold, during such a state of the coinage. When men could pay in deficient coin at its full nominal value, and obtain notes from it payable on demand in full weighted coin, which might be immediately melted down and resold to it at the rate of £4 per ounce, the simplest knowledge of economic science would shew that it must have suffered a constant drain of gold, which *must* have gone on constantly increasing, until it would certainly in the end have caused the bank to stop payment. The longer continued the efforts of the bank were to supply gold coin, the more surely was it bringing on its own ruin. The true explanation of the phenomena described by Adam Smith is to be found not in hypothetical excessive issues of paper by the bank, but in the state of the gold coinage.

209. In 1780, all Acts dating from Henry VIII. forbidding the carrying of the gold and silver coin into Ireland, were repealed.

210. Although the gold coinage had been amended, the silver still continued in a very bad state. In 1787, a new issue was begun, but suspended after about £80,000 had been coined. At this time the sixpences were deficient by about one-third; the shillings by about one-fourth; the half-crowns by about one-eighth; and crowns less so, and great quantities of counterfeit copper were in circulation. This continued to get worse, and in 1796, a new copper coinage became necessary. In the following year the Government contracted with the celebrated firm of Boulton and Watt, at Soho, near Birmingham, to coin 500 tons of copper pennies, each coin to weigh an ounce. Many specimens of this coinage are still in circulation.

211. In 1797, there being a great deficiency of silver money, Spanish dollars were issued with a small stamp on them, but having been wrongly rated, great quantities were imported and stamped surreptitiously. The bank then called them all in, and was obliged to pay the forged as well as the true ones. In 1798, large quantities of light gold being in circulation, the bank repeated their advice by public advertisement, that the public should weigh each coin presented to them, as none but money of full weight could be received at the bank.

212. On the 10th of February, 1798, a committee of the Privy Council was appointed to take into consideration the state of the coinage, and the constitution of the Mint, and to report to the King such improvements in each as they might think desirable. This committee referred it to Mr. Henry Cavendish, and Mr. Hatchett, to examine whether coin made of soft and ductile gold, or of gold as hard as is compatible with the purposes of coinage, suffers the most by wear, and also whether coin of a flat, smooth, and broad surface, wears less than coin which has protuberant parts, raised above the ground of the pieces.

213. A detailed account of the experiments instituted to settle these questions is given in the *Philosophical Transactions* for 1803. The experiments were begun in the latter end of 1798, and completed in April, 1801. Various alloys of gold were tried—with arsenic, antimony, zinc, cobalt, nickel, manganese, bismuth, lead, tin, iron, emery,

copper, and silver. The result shewed that silver and copper were the only alloys fit to form gold coin. All the others injured the ductility of the metal. The effects of various alloys on the specific gravity of gold were very remarkable. The quantity of gold being taken at 18 dwts. 10 grs., with 1 dwt. 14 grs. of various alloys, made the specific gravity of the compound vary from 19.277 to 16.627. Experiments were also made to ascertain which alloy was the best, and it was fully proved that the alloy of one-twelfth of copper was the best. The wear also was greater upon raised or embossed surfaces than upon flat and plain ones.

214. The *Treatise on the Coins of the Realm*, which Lord Liverpool afterwards published in a separate form as a letter to the King, was intended to be offered to this committee as a draft report.

In this letter, Lord Liverpool, after stating the deficient condition of the gold money in 1774, and its recoinage, says that the difficulty attending the improvement of the silver coin was, that the two metals were estimated at a different value at the Mint than they were generally sold for in the market. That so long as this continued, only that metal which is estimated at the lowest value with reference to the other would be brought to the Mint to be coined. A constant traffic in the coins would go on, greatly to the loss of the public, in consequence of every one being allowed to bring any quantity of each metal to the Mint to be coined free of expense.

215. Lord Liverpool then enforces the doctrine of Sir William Petty, Locke, Harris, and other eminent writers, that the standard coinage of the country should be made of one metal only, and that coins of this metal should be legal tender without limitation. Subsidiary coins, however, might be made of other metals for the convenience of traffic, but these should be legal tender only to a limited amount. He then gives a sketch of the history of the coinage of the country, with the different relative values of gold and silver. Locke had recommended silver as the legal standard, but Lord Liverpool explained the circumstances which had caused gold to become in common usage the standard of payment during the preceding century. He says, that since 1717 to the end of the century, no more than £584,764 17s. 5½d. in tale of silver had been coined, and from 1760 to 1800, a period of 40 years, not more than £63,983 15s. 5d.

216. He recommended that gold should be made the standard metal of coinage, with silver and copper as subsidiary ones. That the gold coinage should be legal tender to an unlimited amount, and silver only for all sums below the gold unit. Similarly copper should be legal tender for sums only below the silver unit. The charge of workmanship should be taken out of the inferior coins, because they would pass in payment at their nominal rate, or value, provided their value in metal and workmanship was equal to such nominal value. By taking the charge of workmanship out of these silver coins they would be retained in the country for the purposes of internal traffic, for no foreign merchant would take his balance in such coins in payment of any sum greater than they were made legal tender for, as their value in foreign countries would be less than their nominal value. There could be no conflict

between coins made of different metals, nor would they be melted down for the purpose of being converted into plate, as had frequently happened during the course of the last century, whenever the price of either gold or silver bullion in the market rose above the Mint price.

217. This we may observe would be true only as long as the difference in the market values of the two metals did not become greater than the sum charged for the workmanship of the silver coinage. If, for instance, the value of gold, as metal, were to fall in comparison to that of silver, to an extent greater than 6 per cent., which is as nearly as possible the difference between the market value of the silver and the nominal value of the silver coinage, the same phenomena would reappear, and demand a further reduction of the quantity of silver in the shilling.

218. Lord Liverpool then gives some notions on the paper currency, which we have considered under the word *CURRENCY*, and many other most valuable and interesting details relating to the coinage.

By experiments, it was found that the depreciation of the coinage by wear and tear had considerably increased since 1787. The deficiency in the crown pieces now amounted to about $3\frac{1}{2}$ per cent.; in the half-crowns to about 11 per cent.; in the shillings to about 30 per cent.; and in the sixpences to about 42 per cent. Acts were passed, statutes 1798, c. 59 and 1799, c. 75, to prohibit the importation of light silver coin of the realm. The bank again found it necessary to caution the public against light gold, and to weigh all that was offered in payment, in consequence of the depreciated state of the coinage.

The Bank of England had issued Spanish dollars stamped with a small king's head, at somewhat above their market value, in consequence of which numbers were imported, and the stamp counterfeited. In 1804, they tried another device, but this was easily forged, and they attempted to withdraw these dollars from circulation, but great difficulty arose from the clerks not being able to distinguish the true from the false. Nay, even the clerks at the Mint and the bank differed in their opinion as to which were forged and which were genuine. A new issue was made, stamped at Mr. Boulton's mint.

219. In 1809 and 1810, the gigantic commercial speculations which were set afloat, and greatly fostered by the extravagant issues of the Bank of England and the country banks, produced that sudden rise in the market, or paper, price of gold, and the disappearance of guineas, which gave rise to the appointment of the Bullion Committee, and the famous report which produced such interesting discussions in 1811. A full analysis of the report is given under *BULLION REPORT*.

220. Few men of common sense can read these debates, and think upon the vote of the House of Commons now without shame. To the best of our belief it stands unique in the annals of legislative folly. Other legislatures have made severe laws and enacted cruel punishments against those who made a difference between paper and gold, but not one that we are aware of, ever came to the solemn resolution that a £1 note and one shilling were the same thing as a £1 note and seven shillings.

221. On the 6th of May, 1811, Mr. Horner

opened the debate on the Bullion Report, in a speech which raised him to the greatest eminence in public estimation. It abounded in valuable details, though not free from some errors. He concluded by moving the following resolutions:—

1. "That the only money which can be legally tendered in Great Britain, for any sum above 12 pence in the whole, is made either of gold or silver; and that the weight, standard, or denomination, at which any such money is authorized to pass current, is fixed under His Majesty's prerogative, according to law.

2. "That since the 43rd year of the reign of Queen Elizabeth, the Indentures of His Majesty's Mint have uniformly directed that all silver used for coin should consist of 11 oz. 2 dwts. of fine silver, and 18 dwts. of alloy in each pound troy; and that the said pound troy should be divided into 62 shillings, or into other coins in that proportion.

3. "That since the 15th year of the reign of King Charles the Second, the Indentures of His Majesty's Mint have uniformly directed that all gold used for coin should consist of 11 oz. of pure gold, and 1 oz. of alloy in each pound troy; and that the said pound troy should be divided and coined into 44 guineas and one half guinea, or into other coins in that proportion.

4. "That by a proclamation of the 4th year of the reign of King George the First, it was ordered and directed, that guineas and the several other gold coins therein named, should be current at the rates and values then set upon them; viz., the guinea at the rate of 21 shillings, and other gold coins in the same proportion; thereby establishing, that the gold and silver coins of the realm should be a legal tender in all money payments, and a standard measure for ascertaining the value of all contracts for the payment of money, in the relative proportion of 15 ⁶⁰⁰⁰/₁₀₀₀₀ pounds weight of sterling silver to one pound of sterling gold.

5. "That by a statute of the 14th year of the reign of His present Majesty, subsequently revived, and made perpetual by a statute of the 39th year of his reign, it is enacted, that no tender of payment in money made in the silver coin of this realm of any sum exceeding the sum of £25, at any one time, shall be reputed in law, or allowed to be legal tender within Great Britain or Ireland, for more than according to its value by weight, after the rate of 5s. 2d. for each ounce of silver.

6. "That by a proclamation of the 16th year of the reign of his present Majesty, confirmed by several subsequent proclamations, it was ordered and directed that if the weight of any guinea shall be less than 5 dwts. 8 grs., such guinea shall cease to be a legal tender for the payment of any money within Great Britain or Ireland, and so in the same proportion for any other gold coin.

7 "That under these laws (which constitute the established policy of this realm in regard to money,) no contract or undertaking for the payment of money stipulated to be paid in pounds sterling, or in good and lawful money of Great Britain, can be legally satisfied and discharged in gold coin, unless the coin tendered shall weigh in the proportion of 20-21 parts of 5 dwts. 8 grs. standard gold for each pound sterling specified in the said contract; nor in silver coin, for a sum ex-

ceeding £25, unless such coin shall weigh in the proportion of 20-62 of a pound troy of standard silver, for each pound sterling specified in the contract.

8. "That the promissory notes of the Bank of England are stipulations to pay, on demand, the sum in pounds sterling respectively specified in each of the said notes.

9. "That when it was enacted by the authority of Parliament, that the payment of the promissory notes of the Bank of England in cash, should, for a time, be suspended, it was not the intention of Parliament that any alteration whatsoever should take place in the value of such promissory notes.

10. "That it appears that the actual value of the promissory notes of the Bank of England (measuring such value by weight of standard gold and silver as aforesaid) has been for a considerable period of time, and still is, considerably less than what is established by the laws of the realm to be the legal tender in payment of any money contract or stipulation.

11. "That the fall which has thus taken place in the value of the promissory notes of the Bank of England, and in that of the country bank paper, which is exchangeable for it, has been occasioned by too abundant issue of paper currency, both by the Bank of England and by the country banks; and that this excess has originated from the want of that check and control on the issues of the Bank of England, which existed before the suspension of cash payments.

12. "That it appears that the exchanges with foreign parts have, for a considerable period of time, been unfavourable to this country in an extraordinary degree.

13. "That, although the adverse circumstances of our trade, together with the large amount of our military expenditure abroad, may have contributed to render our exchanges with the continent of Europe unfavourable, yet the extraordinary degree in which the exchanges have been depressed for so long a period, has been, in a great measure, occasioned by the depreciation which has taken place in the relative value of the currency of this country, as compared with the money of foreign countries.

14. "That during the continuance of the suspension of cash payments, it is the duty of the Directors of the Bank of England to advert to the state of the foreign exchanges, as well as to the price of bullion, with a view to regulate the amount of their issues.

15. "That the only certain and adequate security to be provided against an excess of paper currency, and for maintaining the relative value of the circulating medium of the realm, is the legal convertibility on demand of all paper currency into lawful coin of the realm.

16. "That in order to revert gradually to this security, and to enforce meanwhile a due limitation of the paper of the Bank of England, as well as of all the other bank paper of the country, it is expedient to amend the Act which suspends the cash payments of the bank, by altering the time till which the suspension shall continue, from six months after the ratification of a definitive treaty of peace, to that of two years from the present time."

222. One would imagine that the first 15 of these resolutions are so perfectly conformable to

the facts, which were patent to all the world, that it would have been impossible to controvert them. It may, therefore, excite our curiosity to know what were the arguments alleged against them. It was this, that there never was any standard legal weight of the coinage at all! Mr. Vansittart said (*Hans. Parl. Deb. Vol. XIX. p. 924-5*)—"We are told that our standard is changed or lost, and triumphantly asked, where shall we now find it? One should suppose the standard was something visible and tangible, which had been accidentally mislaid, and that we ought to offer a reward for bringing it back again. But I affirm that a standard, in the sense used by these gentlemen, namely, *a fixed and invariable weight of the precious metals, as a measure of value, never existed in this country.*" The mode in which he proved this astounding assertion was, that a debt of £25 might be legally paid in crowns, half-crowns, shillings or sixpences, each species of coin being of a different degree of deterioration, and therefore the quantity of each necessary to discharge the debt being of different weights. And which of these, he asked, was the true standard? He said that he did not conceive himself "bound either to admit or to deny that bank notes have lost a value which they never possessed, and which the legal coin of the country never possessed, namely, a value estimated by a fixed weight of gold or silver bullion. They never had any other than a current value founded on the public confidence in the bank, and this value, I firmly believe, they possess as much as ever." Mr. Horner's first resolution was negatived by a majority of 151 to 75; the 14 following ones were negatived without a division, and the last was rejected by 180 to 45.

223. The government, if they had been wise, would have been satisfied with their triumph. But not content with that they moved a series of counter resolutions. But as the voice of every competent judge since that time has condemned them, and Parliament itself a very few years afterwards reversed them, we need not encumber our pages with them. The third only may be quoted.

"That the promissory notes of the said company (i.e. the bank) have hitherto been, and are at this time, held in public estimation to be equivalent to the legal coin of the realm, and generally accepted as such in all pecuniary transactions to which such coin is legally applicable."

224. Mr. Canning poured forth upon this resolution all the powers of his sarcasm and wit. Many members had shown that it was a notorious falsehood that bank notes and guineas were equal in public estimation. From their own knowledge they stated that a £1 bank note, and from 5s. to 7s. in silver, were given for a guinea, and that there were two prices for things, according as they were paid for in guineas or bank notes. He shewed that such a resolution was as futile as the dogma of the Inquisition against the discoveries of Galileo. He said that those reverend fathers, indeed, had the advantage of being able to call in the aid of the secular arm to enforce the acceptance of their doctrines, and he feared that the advocates of that resolution had some thoughts of employing similar means of proserity. There was something ominous in that mixture of law and opinion that pervaded the resolution. The business of the law was with con-

duct; but when it was put forward to influence opinion, pains and penalties were not far behind. Some convictions had recently taken place under a law passed in a period of monetary convulsion, in the reign of Edward VI., when the coin had been debased upwards of 200 per cent. in the space of three years, and when, consequently, merchants and traders had increased the prices of all their commodities in a similar proportion. To counteract this, laws were passed regulating the prices of all things, and inflicting penalties on those who should exchange any coined gold, or silver, at a greater value than the king's proclamation had ordered it to be current for. Such was the law now brought forward for use at the present time. Bad, however, as it was, it was not so absurd as to declare the state of public opinion. To find the most approved method of applying the operation of law to the reformation of speculative opinion, we must descend a few years later, from the reign of Edward the VI., to that of Mary.

225. Even in such times, however, there were some shrewder spirits, who saw the errors into which the English government was running, and determined to guard against their effects in their own case. In 1529, Gavin Dunbar, Bishop of Aberdeen, in a contract with William Sutherland, of Duffus, stipulated that if it should happen that the money of Scotland, or of any other kingdom which passes in Scotland, be raised to a higher price than it is now taken in payment for, whereby the reverend father, his heirs or assigns, be made poorer or in worse condition, he, the said William Sutherland, should pay to the possessors (whoever they may be) of the annual rent reserved therein, for every mark of 32 pennies, one ounce of pure silver of a certain fineness, or else its true value in the usual money of the kingdom of Scotland." If the doctrines of the third resolution were sanctioned by Parliament, it required no great sagacity to foresee that men would ere long seek to guard themselves against the effect of such a system, by resorting to contracts of a similar nature.

Notwithstanding all the arguments against it, the resolution was carried by 76 to 24, and all amendments to the government resolution were negatived. The paper currency became still more rapidly depreciated, as may be seen by the table appended to the article CURRENCY, PAPER, until the great mercantile catastrophes of 1815 and 1816, when by the destruction of many country banks, and the removal of their worthless paper, the value of the remainder was raised almost to par.

226. We have been led to notice here what some might think perhaps more properly belonged to paper currency, because the bank notes were, in fact, during this period, substantially a portion of the coinage. Upon looking back to that dark era, we can now scarcely credit the palpable fallacies which deceived so many men. And yet when we have seen that the rise of the market price of bullion, and a fall of the foreign exchanges from a depreciated currency, were so well understood by the merchants and statesmen of 1696-97, and the Economists of the last century, it may be interesting to inquire what was the fallacy which so long imposed upon men of undoubted ability, and who held their convictions in perfect good

falth? What was the cause of the great degeneracy in sound doctrine between 1696 and 1811, so that it became necessary to argue the question from its very foundations? It was this, that the men of 1696 could see that the coinage did not contain much more than half its proper weight of bullion. But the men of 1811 failed to see that the bank note could only preserve its value by maintaining a certain proportion with the metallic currency. That an excess of the *quantity* of the notes diminished their value relatively to gold, and that this diminution in the value of the promise compared to what it professed to represent, was exactly identical in principle with a debasement of the coinage by alloy, or a depreciation of it from deficiency in weight of bullion. When bank notes became the measure of value, it was imperatively necessary that they should be able to purchase in the market the weight of bullion they professed to represent. When bullion rose to £5 10s., when bought in bank notes, they were exactly in the same predicament as the coinage was under William III., when it had lost 25 per cent. of its weight. Guinea rose to 30s., because the silver coinage was deficient about 30 per cent. in weight. The diminution in the weight of the coinage was palpable to the senses; the diminution in the value of the "promise to pay" was only perceptible to the eye of reason and intelligence, and long escaped the observation of men who conscientiously disbelieved it.

227. This, to a certain extent, might be excusable. But what was utterly inexcusable, was the astonishing assertion that there never had been in the country a certain legal measure of value of a certain weight of bullion. There were abundance of laws to disprove this. The doctrine they maintained was, that it was the stamp alone which gave the money value, and that the quantity of bullion in it was wholly immaterial. Consequently they drew the conclusion that if a piece of paper had the word "pound" written on it, it could not be depreciated. It is scarcely worth while, however, to argue more about what not one sane man now believes in.

228. Immediately after the cessation of the war, the government took in hand the great work of a complete recoinage. The great principle so earnestly enforced by Locke, of having only one metal as a standard measure of value, was at length adopted. During the course of the last century, merchants had universally adopted the custom of paying their debts in gold, because, from the misrating of the Mint, it was the cheapest medium of payment. All contracts had consequently come to be considered as payable in gold, and this was now adopted as the sole legal tender. At the end of the 18th century the relative value of gold and silver had undergone a perceptible change in the markets of the world. Hence, the valuation that had been made of the two metals in 1717, no longer corresponded to the market value of the two metals, and if a silver coinage had been issued of the former denomination and weight, the very same effects would have followed which had been so often experienced before. It would immediately have disappeared from circulation. In order to guard against this, the power of private persons to have silver coined was taken away, and the pound weight of silver was ordered to be cut into 66 shillings instead of 62. But of

these, four are kept back for expenses of coinage, and by way of seignorage, and only 62 are issued, but they are declared to be equal to £3 2s. in tale. The result of this is, that the present shillings pass current for rather more than 6 per cent. above their real value. In order to prevent any injustice to individuals from this depreciation of the coinage, it was enacted that no tender of payment in silver above 40s. at any one time should be legal, either by tale or by weight. This arrangement of the English coinage has this great merit, that it allows a very considerable change to take place in the market value of gold and silver without causing any disturbance in the currency. In France, where silver is the legal tender of the state, gold and silver are coined according to their relative market value, and in consequence of the prodigious supplies of gold from Australia and California, silver has nearly disappeared from circulation. Gold has almost entirely superseded silver in France, for exactly the same reason as it did in England in the reign of William III. and during the 18th century, namely, that it was overrated in comparison to silver. This cannot take place in England until the difference in their relative values exceeds the artificial difference in the English coinage. The amazing quantities of gold poured into Europe, greater than had ever before occurred in so short a time, created great apprehensions in many persons minds that gold was going to undergo a rapid diminution in value, similar to what had happened in the 16th century. If this were the case, it would become necessary to consider what should be done with the British coinage. It is not likely that Parliament would ever sanction any alteration in the weight of the measure of value, or in other words, alter the mint price of gold. If such a diminution in the value of gold should take place, of which there does not appear, as far as can be conjectured on no doubtful a point, any very great likelihood, the probable plan adopted would be to diminish the weight of the shilling to the 70th part of the pound.

229. The last coinage of guineas took place in 1813. We have seen that when they were first coined, they were intended to be equivalent to 20s. in silver, or a pound, and it was owing to an error in their rating that they passed for 21s. On the 1st July, 1817, a new gold coin was made current by proclamation of the value of 20s., which was ordered to be called a sovereign, in imitation of the coin of that name by Henry VII. It was ordered to be of the weight of 5 dwts, 3.274 grains of standard gold. And thus it has become the British pound. When persons ask,—What is a pound? the answer is very simple. It is 5 dwts. 3.274 grains of gold, 22 carats fine, and 2 carats alloy. A bank note that promises to pay so many pounds, is a promise to pay so many multiples of that unit, and nothing else. Since this last reformation of the coinage, no alteration that requires notice has been introduced except the striking of 2s. pieces, called florins, to pave the way for the decimal division of the currency. But a change of this magnitude, enlisting no party passions in its favour, however beneficial it might ultimately be, involving as it would a temporary derangement in affairs of such magnitude, will not be easily effected in this country. The utility of the change

has been much contested by high mercantile authorities; and what will still more impede, if possible, its introduction, is that its supporters are by no means unanimous in the plans they recommend. (COINAGE, DECIMAL.) So what between strong opposition from opponents, and divided councils among its supporters, the adoption of this change will most probably be postponed for a very long period, if ever adopted at all.

An historical account of English money, from the Conquest to the present time. By Stephen Martin Leake, Clarenceux King of Arms. London, 1725, 1745.

A view of the gold coin and coinage of England, from Henry III. to the present time. By T. Snelling. London, 1763.

Tables of English silver and gold coins. By Martin Folkes. Reprinted by the Society of Antiquaries. London, 1763.

Annals of the Coinage of Great Britain, and its dependencies. By the Rev. Rogers Ruding, London, (3rd edit.) 1840.

The silver coins of England. By Edward Hawkins, F.R.S., &c. Keeper of Antiquities in British Museum. London, 1841.

On the Coinage of Scotland.

230. Great obscurity envelops the origin of the Scottish coinage. The latest writer on the subject, Mr. Lindsay, states that he is in possession of three coins found about the year 1842, in Ireland, which he thinks are in all probability to be attributed to Somerled, the famous king of the Western Islands, contemporary with Ethelred II.

231. No coin had hitherto been certainly known to exist of any prince on the mainland before William the Lion, but the last mentioned writer says that there is one now existing, which may with confidence be referred to Malcolm III., (1066). He has also appropriated several to Alexander I., (1107); and he says that several specimens of those of David I. (1124,) exist, weighing from 20 to 23 grs. It is doubtful whether any of Malcolm IV. (1153,) exist. Some of William the Lion were known to exist previously, but in 1780, a workman digging a foundation to enlarge the church of Dyke, near Inverness, came upon a very large quantity of them. With the assistance of his wife he managed to secure the whole of them, and soon became a considerable farmer. Great numbers of the coins were melted by the silversmiths, but considerable numbers were rescued. They weigh from 21 to 23 grs.

232. There is nothing of an economical interest to detain us in regard to the coinage of Alexander II., (1214,) or Alexander III., (1249,) or Baliol, (1292.) Although numismatists have been somewhat perplexed to arrange them, they all maintained the proper standard of weight and fineness. Edward I., in 1300, was the first to set the bad example of diminishing the weight of the English coinage, and Robert Bruce followed it in Scotland. How much he diminished them is not certain, as specimens of different weights exist. They were now about 21 to 19 grs. He also coined half-pennies and farthings. The pound tale thus began to vary from the pound weight. He coined 252 pennies out of the pound weight. David II. (1329,) still further reduced the weight of the coins. He coined pennies, half-pennies and far-

things. He also introduced groats, and half-groats in imitation of the English Coinage. The groats weighed 72 grs. In 1366, the money was ordered to be of the weight and fineness of English money, which made 25s. to the pound weight. In 1367, however, the standard was reduced to 20s. 4d. the pound weight, which made the groat 61 grs. He also coined gold pieces in imitation of the nobles which were recently introduced into England.

233. Robert II. (1371,) at first continued the coinage at the same weight as he found it. But it was soon depreciated. In 1373, the Commons of England petitioned that the four-pence Scotch should go for no more than three-pence English. In 1382, it was so depreciated that the English Statute of that year ordered that all Scotch and foreign money should only pass as bullion.

In 1385, it was ordered that the noble of gold should be current for 7s. 8d.; the scutum or *ecu* of France for 47d.; the franc for 42d.; the *ecu* of Flanders for 47½d.; and the mouton of France for 50d.

234. Robert III. (1390,) caused an important Act to be passed regarding the coinage. In 1393, it was enacted that the money of gold and silver should be coined by Bonachius, of Florence. That out of 6 ounces of pure silver, troy, 21 shillings should be made. This was the first Act ordering a gold coinage. It ordered that a *lion*, or *St. Andrew*, should be coined to be current at 5s. The noble of good gold and good weight was to be current at 9s. 6d.; and the Flemish noble at 9s. 6d., and no other nobles to be current. The scutum was reduced to 4s. The weight of the *St. Andrews* was about 60 grs.

235. The Scotch money had now become greatly more degraded than the English. The groats of Robert III. seldom exceed 45 grs. and are often less than 40, while those of England were still 72. In consequence of this the Scotch money was reduced to half its nominal value in England.

236. During the captivity of James I. (1406-1424) the coinage was still further diminished, the groat now weighed only from 30 to 36 grs. In 1424, Parliament desired the King to mend his money, when he thought fit, and to strike it of the same weight and fineness as that of England. Of course this was never done. About 38 lbs. weight of gold was coined.

237. In the reign of James II. (1438,) there was great confusion of the coinage. Not only the weights of the coin were altered, but their denominations. In 1451, an Act directed a new coinage to be struck equal in weight to that of England, at the rate of eight groats to the ounce. Each new groat should pass for eight-pence, with half-groats, pennies, half-pennies, and farthings, in proportion. The English groat was to pass at a similar value. The gold lions were to be of the same weight as the half-nobles, and pass for 6s. 8d. In 1456, the new groat was ordered to pass for twelve-pence. Thus by the Act of 1451, the pound weight was made equal to £3 4s. in tale; and by the Act of 1456, to £4 16s.

238. These tamperings with the denomination of the coin continued in the reign of James III. (1460.) In 1467 the old English groat was raised to sixteen-pence; the new groat to twelve-pence; the English penny to three-pence. In 1467-8,

Jan. 12, the Scotch groat of the crown was raised to fourteen-pence, and the old English penny to four-pence. The pound weight was thus £5 12s. in tale. In 1475, groats of 12 to the ounce, to pass for twelve-pence, were coined, which brought the pound weight to £7 4s. in tale. In 1483, groats of 10 to the ounce, to pass for fourteen-pence, were coined, making the pound weight £7 in tale.

239. Similar tamperings took place with the denomination of the gold coinage. In 1475, the *demy* or Scottish crown was raised to 13s. 4d. In 1483, the penny of gold was ordered to be of the weight and fineness of the rose noble, and to be equal to 30 groats at fourteen-pence each.

240. James IV. (1488,) made no alteration in the coinage.

241. With James V. (1514,) an alteration in the fineness of the coinage took place. Up to this time it had always been the same as the English, namely, 11 dwts. 2 grs. fine. It was now reduced to 10 dwts. 2 grs. fine. In 1525, eleven groats were ordered to go to the ounce, and pass for eighteen-pence each; and in 1527, the king entered into a contract with Joachimus Hochstetter for a new coinage. Out of the pound of pure silver, there were to be coined 176 silver coins, to be of the value of eighteen pence, of the fineness of 10 dwts. 2 grains. They might also coin pieces of twelve-pence, and six-pence. The obscurity hanging over these frequent changes in weight and denomination has rendered it impossible to ascertain what tale the pound weight had become, different authorities making it vary from £9 12s. to £11 17s.

242. After this reign the groat disappears, which had been the largest coin struck hitherto in Scotland. It originally was of the same weight and nominal value as the English groat, but it was now reduced to about 3-5ths of its weight, and yet passed for between four and five times its first value.

243. About the tenth year of the reign of the unhappy Mary (1544), pieces called testoons were coined, weighing about 66 or 68 grs. It is not known what value they passed for, but as they were seven to the ounce, they may probably have been about 3s.

During her marriage with the Dauphin, testoons and half testoons were coined, of 92 and 96 grs. weight; but the authorities cannot tell us their nominal value. Similar coins were struck during her widowhood. On her marriage with Darnley, in 1565, a much larger and more magnificent coinage was struck. It was enacted, December 22, 1565, that there should be coined a penny of silver, called the *Mary Ryall*, of the fineness of 11 dwts. fine, and of the weight of one ounce troy, and to have course for 30s., and proportionate coins for 20s. and 10s. Repeated tamperings with the nominal value took place. In 1544, the pound weight passed for £9 12s. in tale; in 1556, for £13; and in 1565, for £18.

244. According to the usual fortune of the House of Stuart, James VI. succeeded to the throne as an infant (1567). Orders were given by the Council to coin pennies of silver, to be called the *James Ryall*, of similar weight as the *Mary Ryall*, and to pass at the same rate. In 1579, the king, with the advice of his three estates of Parliament, ordered that a penny of gold should

be coined, 21 carats fine, at the rate of 10 to the ounce, to be current for 40s. Scots, and that the mint price of pure gold should be £21 the ounce, and other gold in proportion to its fineness. At the same time a penny of silver was to be coined, 11 dwts. fine, weighing 17 dwts. 11 grs., to be current at 26s. 8d., Scots, to be called the two-mark piece. The mint price of pure silver was to be 36s., and other silver in proportion to its fineness.

245. In 1580, the money was again altered. The Paris ounce of silver was to be coined into 44s., and gold coins were to be struck at the rate of five to the Paris ounce, 21 carats fine, to be current at £4 4s. In 1581, this coinage being found to be misrated, it was called in, and ordered to be recoined, in 10s. pieces, 11 dwts. fine, containing four to the ounce. In 1584, it was found that the gold coinage was all disappearing, and foreign coins introduced; and it was ordered that new gold coins should be struck, six pieces to the ounce, 21½ carats fine, to be current at £3 15s., and others at nine to the ounce, to pass for 50s. In 1593, the gold was ordered to be 22 carats fine, and to be rated at thirty pounds Scots to the ounce; and five pound pieces to be struck at six to the ounce. In 1598, in order to drive out the foreign coins, they were ordered to pass only at £28 16s. to the ounce, 22 carats fine. The thistle noble was ordered to pass for £7 16s.; the hat piece for £4 9s.; and the lion at £5. The great scarcity of coined money being much complained of, and the prices of all sorts of gold and silver money, foreign as well as domestic, having risen to a great height above the legal rates, to the confusion of the people, the ounce of silver was ordered to pass for 50s., and the old 30s. pieces to be raised to that rate, and the new ones, being ¾ of an ounce, to 37s. 6d. In 1601, the gold was ordered to be 22 carats fine, and to be rated at £36 the ounce, to be coined in pieces at six to the ounce, to pass for £6. The in-bringer of bullion was to receive 33 pounds for every ounce.

After the accession of James to the throne of England, he coined very little Scotch money, either of gold or silver. It is all of the English standard, and nearly similar to it in type, weight, and denomination. By an Act of 1603, the Scottish gold coins were declared current in England in the proportion of 1 to 12, and English coins were made current in Scotland in 1619, at the same rate.

246. Charles I. (1625) was the last king who coined gold money for Scotland during this century. He coined the sovereign, or sceptre, at 154 grains, which was called the £12 piece, but must have been worth about £13 13s. Scots, the ounce of gold being raised to £41 in tale. He also coined a considerable amount of silver money.

247. Charles II. (1660) coined 4, 2, 1, and ½ mark pieces in silver, the first of these weighing 16½ to 17 dwts., and the others in proportion. In 1675, he coined dollars of about the same weight as the four mark piece, to pass for 56s. Scots, and its subdivisions in proportion. James VII., during his short reign, coined 40s. and 10s. pieces, the former weighing 280 to 285 grains.

248. William and Mary (1688) coined 60s., 40s., 20s., 10s., and 5s. pieces, of the same weight

as those of the preceding reigns. In 1701, a small coinage of gold took place from the metal sent over from the disastrous colony of Darien. The coins were called pistoles and half-pistoles, the former weighing 106 grains. It is not certain what they were rated at.

249. Anne (1701) coined only 10s. and 5s. pieces in silver, weighing 70 and 35 grains. By the treaty of Union (1706), it was provided that the coinage of Scotland should be assimilated to that of England, and all losses sustained by private persons by this operation were to be made good out of the equivalent fund. The English shilling passed for 13d. in Scotland, and as this was to be reduced to the same value as in England, it became necessary to compensate the holders of English money in Scotland, and at the same time to do it so quickly that no time should be given to import more English money in order to reap the benefit of the compensation. The measures were prepared secretly, and on a given day, all the holders of English money were suddenly ordered to bring it to certain places, where the money was told off, sealed up, and returned the same day, with a certificate entitling the proprietor to be paid out of the equivalent fund. There was also £150,000 in foreign money brought in to be exchanged. But the measures were so well taken, that new English money was issued in great quantities from the Mint, and no disturbance of trade took place, and Scotch money finally ceased to be current in September, 1708.

Numismata Scotiæ; or a series of the Scottish Coinage from the reign of William the Lion to the Union. By Adam de Cardonnel. Edinburgh, 1786.

A view of the silver coins of Scotland. By T. Snelling. London, 1763.

A view of the Coinage of Scotland. By John Lindsay. Cork, 1845.

On the Coinage of Ireland.

250. The origin of coining in Ireland is lost in the ages of fable. The national mythologists boldly claim the honour of coining for Eadner Deagh, who was about contemporary with Solon. But safely dismissing these myths with the credit they deserve, it is certain that Ireland was comparatively a wealthy and enlightened country during the deepest ages of European darkness. The Danish historians relate that the Scandinavian pirates in the ninth century invaded Ireland, defeated the king, and sacked his treasury at Dublin, and carried off such quantities of money, that every man had as much as he could carry away.

251. Payments, offerings, and ransoms were paid also in bullion measured by the ounce. In 1004, Brian Boroiame offered 20 ounces of gold on the altar of St. Patrick at Armagh; in 1154, Tridelvos O'Connor, king of Ireland, received 60 ounces of gold as the ransom of the chief of the people of Munster, whom he had defeated, and many other instances might be mentioned. Moriortagh O'Loughlin, king of Ireland, let some land to the monastery of Ardraccan in perpetuity, at a yearly rent of three ounces of gold. Thus it appears that it was customary to stipulate for payments in weight as well as by tale, as it was also in France and England at the same period. Abundance of Irish coins of the 9th

and 10th centuries exist, but it is impossible to ascertain their dates. Their weights vary from 25 to 10½ grains, and consequently supposing them to be called by the same name, and to pass for the same nominal value, it is clearly seen that it was a necessary precaution to stipulate that payment should be made by weight, and not by tale.

252. No evidence exists to shew that Henry II. coined money in Ireland. But in 1177, John being then 11 years of age, was declared Lord of Ireland, and money was struck in his name, of the same standard as the English money. The Irish money consisted of halfpennies of 11 grains. In 1210, in the 11th year of his reign, John again visited Ireland, and appointed John de Grey, Bishop of Norwich, Lord Justice, and ordered him to coin pennies, half-pence, and farthings, of the same standard as those of England, which were to be current in both countries.

253. The coinage continued to be the same in the two countries, and was afflicted with the like disorders of clipping and forgery, during the long and feeble reign of Henry III. In 1272, five or six sorts of base money were in circulation. The first thing Edward I. did, was to reform the coinage. He ordered Gregory Rockley, Lord Mayor of London and Master of the Mint, to make his silver 11 oz. 2 dwts. 6 grs. fine, and out of the pound of twelve ounces to coin 243 pence, of the weight of 24½ grains. In 1279, he coined groats, half-pence, and farthings, to be current in England and Ireland. In 1300, crocards, pollards, and the other foreign base coin were decreed in Ireland as well as in England.

254. In 1326, Edward III. cut the ounce into twenty-six pennies. In 1336, he reduced the fineness of the bullion to 10 ounces, and cut the ounce into 21 pennies, so that the mint price of silver was now 21d. the ounce. The Irish pennies were thus a larger coin than the English, for they weighed 21½ grains, the English only 19. In 1338, the circulation of the base money called Turneys was prohibited, as soon as sterling money should be issued to replace them.

255. Nothing calling for special remark occurred till 1465, when in the 5th year of the reign of Edward IV. a Parliament was held at Trim, before Thomas Earl of Desmond, deputy to George Duke of Clarence. Up to this time the coins had always been rated at the same value both in England and Ireland, but in this Parliament they were ordered to pass for a higher rating in Ireland than in England. The noble, which passed in England for 8s. 4d., was ordered to pass for 10s. in Ireland, and the half and quarter nobles in proportion. And from this time all money coined in or for Ireland was of less value than the English generally by one fourth part, so that from thenceforth the Irish shilling was worth only ninepence. Light money was not to be received. In 1467, however, it was enacted that light gold money might be current, but the deficiency was to be made up in silver. The rating of the noble was raised to 10s. in England at this time.

256. In 1467, a great tampering with the coinage took place. An act was passed that a silver coin should be struck, called a *double*, to pass in Ireland for eight pence. The pound weight of silver should be cut into 120 such pieces. Groats of four pence, and half-groats of

two pence, deniers, half-pennies, and farthings, were to be coined in similar proportions. These coins were to be struck at Dublin, Trim, Waterford, Limerick, Drogheda, Galway, and Carlingford. For every ounce of bullion brought by a merchant to be coined, he was to receive back six shillings at this tale, and the king was to receive the remainder for seignorage, out of which he was to pay the expense of coining. After the following Easter this money only was to be current, all other was decreed, and paying or receiving it was made felony. According to this Act, the double or eight-penny piece weighed only 44 19-24 grains Troy, and, therefore, the penny 5½ grs. nearly, being less than one-fourth part of its original weight, and being an immediate reduction of one-half. This great fraud produced its inevitable consequences. A prodigious rise took place in the prices of all necessaries and provisions, and everything was thrown into confusion. In the next Parliament, held in Dublin in 1470, it was recited in an Act, that in consequence of this new coinage the people had been greatly impoverished, many of them had given up their houses and left the country. All merchandise and provisions had grown extremely dear, from which many people were like to die of want. To remedy this, it was enacted that the master of the Mint should coin at Dublin, Trim, and Drogheda, five sorts of silver coins, of the fineness of those struck at London, of the same names as before, the groats to be cut at the rate of 132 groats to the pound weight, and to pass for four deniers. This groat, therefore, weighed 43 84-132 grains. The English groat at the same time weighed 46½ grains. The money struck in terms of the former Act, was reduced to the same rating as the new coinage. By this Act the pound of bullion was cut into 132 groats, or 44 shillings in Ireland, while in England it was cut into 112½ groats, or 37s. 6d., being a difference of 6s. 6d., or 17½ per cent. in the pound of silver. The fraudulent mint masters, however, coined money of less than the legal weight. In 1462, Germyn Lynch, Master of the Mints in Ireland, was indicted for coining forty-eight shillings out of the pound, instead of forty-four. In 1472, the groat of full weight was rated at five pennies, the gold noble at 10s., the crown at 5s., the quadrant at 2s. 6d.; whatever they might be deficient in weight was to be made up in current silver. In 1473, the ounce of silver was ordered to be cut into 14 groats, to pass at four pence each, and other coins in proportion. The seignorage was to be 3d. per ounce in groats, and 4d. on other coins. Thus the mint price of silver was now 56s. per pound, or 4s. 8d. the ounce. The weight of the groat was thirty-two grains, or little more than two-thirds of the English groat.

257. In 1475, the groats of Edward III., Richard II., Henry IV., Henry V. and Henry VI., not clipped, were raised to sixpence, and the English groats of the present king, at five pence, and all the money struck in Ireland at its current rating. All the Mints, except those of Dublin, Waterford, and Drogheda were suppressed. In 1476, the silver money coined at Cork, Youghall, Limerick, and other places in Munster, except Waterford, was found to be light and base, and was decreed. The gold royals were ordered to be current in Ireland at 13s. 4d.; the gold angel at 8s. 4d.;

the gold noble at 12s., and the smaller coins at proportionate rates; any deficiency in weight to be made good in current silver. Several species of foreign money were also legalized; the rider, the ducat, the lyon, the crown, the crusade, the salut, for five shillings, and the Burgundy noble for ten shillings.

258. In 1478, fresh alterations in the coinage took place. Germyn Lynch had been convicted of coining light money, but he was pardoned, and restored to his office. In this year he was allowed to coin money at the rate of 4s. 10d. per ounce, giving back to the merchant 4s. 4d., and retaining four pence for the king.

259. In 1483, the first thing the Parliament of Richard III. did, was to turn Germyn Lynch out of his office of mint master, for having resumed his old malpractices during the last three years of the last reign. The silver pound was ordered to be cut into 225 groats, at four pennies each. The groat was then reduced to 25 15-twenty-fifths grains. The difference between the English and Irish groat was now about 60 per cent. For many years after this, the current coin was so clipped that the greatest inconvenience arose. In 1491, a law was passed to prohibit the receiving or paying clipped or counterfeit money, and it was forbidden to be imported into England above the value of 3d. About this time the difference between the English and Irish coinage was about one-third, as appears from a letter from Octavian, Archbishop of Armagh, to the king in 1487, recommending Arthur Magennis for the bishoprick of Dromore, wherein he says the revenue of the diocese is not worth above forty pounds of the coin of Ireland, which is less by the third part than the coin sterling. This debasement of the coinage was so great at the beginning of Henry VIII.'s reign, that the Earl of Surrey, Lord Lient. of Ireland, requested to be recalled, as for want of money and supplies from England, he was unable to carry on the war against the rebels. It appears too that in 1530, payments were made by weight in consequence of the bad state of the coinage, as Archbishop Allan states that he was obliged to redeem the Archbishop's cross, which had been pledged, at his own expense, and it cost him near an hundred ounces of silver. In 1530, there was a new coinage, but to what extent is uncertain. In 1541, Henry VIII. was proclaimed king of Ireland, on which occasion new groats were struck. They weighed about 40 grains each, but the metal was considerably debased, being 9 oz. 6 dwts. fine, and 2 oz. 14 dwts. alloy; for which reason an act was passed to prohibit their importation into England, under forfeiture of treble their value. In 1544, the coinage was still further debased to 8 oz. fine and 4 oz. alloy, and six-penny pieces at the rate of 144 to the pound, which was the weight of the four-penny pieces in England. In 1546, the king having wasted all his resources by his wars with Scotland and France, ordered brass money to be coined, and pass current for good and lawful money in all parts of Ireland.

260. In 1551, the 4th of Edward VI., an indenture was made with Martyn Piri to coin groats of 4 pence, at the rate of 144 to the pound. They weighed therefore 40 grains. But the metal seems to have been as much debased as

ever, as in the last year of his reign, the groats were cried down to 2 pence.

261. In 1553, Queen Mary, in order to ingratiate herself with her English subjects, forbade the currency of base money, and ordered the standard of gold and silver to be restored. But Ireland was particularly excepted from the proclamation. She made no improvement in the standard, but ordered shillings, groats, and two-penny pieces to be coined. Forty shillings went to the pound, and weighed 144 grains. The other coins were in proportion. In 1554, Sir Edmund Peckham, treasurer of the mint of England, and others, were empowered to make £10,000 worth of base money for Ireland, 3 oz. fine, and 9 oz. alloy, of the same weight as the preceding. In 1557, they were empowered to coin another quantity of £7,000 worth of similar base money, and in the following year, £5,500 more.

262. Elizabeth ordered the pound of silver to be coined into 60 shillings, and carried out the reform of the English coinage which had been determined on by Edward VI., and begun by Mary. As a mode of getting rid of the base coin in England, she gave a commission to Sir Edmund Peckham and others, to convert it into harp shillings, and groats, for the use of Ireland. Out of four thousand pounds of this base coin, eight thousand pounds of harp groats and shillings were to be coined 3 oz. fine, and 9 oz. alloy. The shillings to be 40 to the pound weight. Accordingly no sooner was the base money decried in England than it was imported in vast quantities into Ireland. In 1560, however, the coinage of Ireland was restored to the same purity as that of England. Whereupon the popular joy found vent in the following doggrel:—

"Let bonfires shine in every place,
Sing, and ring the bells apace,
And pray that long may live her grace,
To be the good Queen of Ireland.

The gold and silver which was so base,
That no man could endure it, scarce,
Is now new coyned with her own face,
And made go current in Ireland."

But the Queen seemed unable to carry out her plan to its proper conclusion. Shillings of the value of ninepence English were coined, and ordered to pass current in Ireland for 12 pence. They were cut at 82 to the pound, and weighed 70½ grains.

263. In 1598, the Queen returned to the old fraud of debasing the coinage. She made an indenture with Sir John Martin and his son, the master workers of the mint in the Tower, to coin shillings, half and quarter shillings, pennies, and half-pennies for Ireland, of metal only 3 oz. fine to 9 oz. brass. In 1601, the metal was still further debased to 2 oz. 18 dwt. fine, and 9 oz. 2 dwt. alloy. Copper pennies, and half-pennies, were also coined 190½ pennies to the pound. This was during Tyrone's rebellion. The Queen caused immense quantities of base money to be coined in the Tower, and sent over to Ireland, to pay the army, and at the same time by proclamation, declared this base money to be the lawful and current money of the country, and ordered it to be received in all payments whatever, at its full nominal value, shilling for shilling, under penalties for refusal. In order to facilitate the currency of the base money, all the good was cried

down, and ordered to be considered only as bullion. The policy of this measure, Camden says, was much debated at the Council, many of the members as well as the Queen being against it as likely to be prejudicial to the interest of her subjects, distasteful to the army, and inoperative so far as regarded its intended effects against the rebels, and very damaging to the credit of the Queen. But the Lord Treasurer Buckhurst, after much persuasion, prevailed that it should be tried for a short time, and afterwards the money should be restored to its full value. This foolish plan of course produced all the evil, and none of the good expected from it. Provisions and all things immediately doubled in price. Loud complaints rose from the army, and the Lord Deputy himself said in his letter to Cecil, 10th November, 1601, that his private estate could no longer support the expense at which he was forced to live. Commerce was thrown into confusion, and a great outcry was raised against the merchants for raising the prices of their commodities, whereas it was clear they could not help doing so when they were now obliged to pay 60 pounds Irish, for what they could formerly get for £15 in the foreign markets. The same rule applied to every article in succession in commerce.

264. James I., (1603,) finding the rebellion suppressed, issued a proclamation regulating the currency of the Queen's base money. He ordered the standard to be brought back to 9 oz. fine, and 3 oz. alloy, as was the old Irish standard, and the base mixed money of 3 oz. fine was reduced to its value in silver. The base shilling was reduced to four-pence, and the others in proportion. In 1605, the base shilling was reduced to three-pence, and the others in proportion. In 1607, English shillings were made current in Ireland at sixteen-pence, and afterwards all English money was made current at one-third above its rating in England. The exchange between Dublin and London was at 20s. Irish for 15s. English. In the first ten years of the reign of James I., there were coined of Irish sterling money £166,273 11s.

265. Charles I., (1625,) had granted a patent to the Dowager Duchess of Richmond and Sir Francis Crane, to coin copper farthings, to be current in England and Ireland. These were made in such quantities that, in 1634, a proclamation was obliged to be made that no one should be obliged to take them, and no one should pay more than two-pence in farthings at once. In the same year the exportation of all the good gold and silver coin from the country, in consequence probably of the bad state of the coinage, attracted the attention of Parliament, and both houses, after many debates, agreed to petition the King for the re-establishment of the Mint at Dublin. The King agreed to this, and it was ordered that it should be done, and money struck of the same weight and fineness as that of England. But, from the troubles that broke out soon afterwards, it was never carried out. In 1637, it was ordered that the name of Irish, or harp-money, should be abolished, and all accounts, receipts, and payments reduced to sterling, and made in English money, to the great simplification of business.

266. Cromwell coined no money for Ireland. During the commonwealth many persons in Dublin and other places issued brass or

copper tokens, with their names and places of abode upon them, which passed for a penny each in their neighbourhoods, and among their customers. This expedient was frequently repeated during the following reigns. In 1651, several persons in London sent over great quantities of clipped and base money, which they issued by means of agents, several of whom were caught and executed. The clipped money was ordered to pass by weight only. The base half-crowns were so bad that they were not really worth more than two-pence. Some Peru pieces current for 4s. 6d. were not really worth more than 2s. 4d. Out of pieces of this kind in circulation to the amount of £635, it was found on assay that they were not really worth more than £401 in sterling money. The council repeated the request to have a mint in Dublin, but it was never done.

267. In 1660, Charles II., in order to put an end to the disorders arising from the base coin, found it expedient to legalise and regulate the value of several kinds of foreign coins; by this proclamation we ascertain the names of those in circulation. They were,—

GOLD.

	WEIGHT. dwts. grs.	VALUE. £ s. d.
The Rider.....	6 12 ...	1 2 6
The Half Rider	3 6 ...	0 11 3
The Spanish or French Quadruple } Pistole	17 8 ...	8 4 0
The Spanish or French Double } Pistole	8 16 ..	1 12 0
The Spanish or French Pistole	4 8 ...	0 16 0
The Spanish or French Half Pistole	2 4 ...	0 8 0
The Double Ducat	4 12 ...	0 18 0
The Ducat	2 6 ...	0 9 0
The Spanish Suffrain	7 2 ...	1 8 0
The Spanish Half Suffrain	3 12 ...	0 14 0

SILVER.

The Mexico Rix or Cross Dollar ...	17 0 ...	0 4 9
The Portugal Royal	14 0 ...	0 8 6
The Ducatoon.....	20 16 ...	0 5 9
The old Peru piece, and French } Louis	17 0 ...	0 4 6

and their halves and quarters in similar proportions.

All persons were forbidden to make and issue tokens without licence from the king. But the want of small change continuing, these tokens were as abundant as ever in 1672. In the following year the exportation of gold and silver specie of all sorts, caused no doubt by the bad state of the coinage, was so common that it was forbidden by proclamation, and another attempt was made to suppress the tokens. Plans were discussed for supplying copper money to replace them; but nothing was done till 1680, when a patent for 21 years was granted to Sir Thomas Armstrong and Colonel George Legg, to make copper halfpence to weigh 110 grains Troy. These were declared to be current coin, and all tokens were forbidden under severe penalties. No one, however, was bound to receive payment in these halfpence of more than 5s. in any one sum of £100. And in case traders had more than they could employ of them, the patentees were ordered to be ready at all times to exchange 21s. in halfpence for 20s. in gold or silver. These coins were the best copper money yet struck for Ireland. The foreign coins current in the country were somewhat raised in rating in 1683.

268. In March, 1689, the king, being driven out of England, arrived in Dublin, and immediately raised the rating of the foreign gold and

silver coins. The guinea was ordered to pass for 24s., and the shilling at 13d. This rating continued till 1826, and was the origin of the expression used with regard to the Irish exchange, that it was at par when at 8½, which simply meant that £108 6s. 8d. Irish was equal to £100 sterling. This raising of the denomination was done under the delusive idea that the money could be retained in the kingdom, as merchants were beginning to leave it, with their effects, in consequence of the civil war they evidently foresaw. Such expedients, however, were futile. The king then determined to seize the coining presses of Sir John Knox, to whom Armstrong's patent had been transferred four years before, and coin brass and copper mixed metal money. This was ordered to be received in all payments whatever as of equal value with gold and silver. Some old brass guns in the castle yard were sent to the Mint to be turned into this money, and the collectors of the revenue were ordered to collect all the copper and brass they could in their respective districts, and send it to the Mint. Several proclamations were issued, regulating the currency of this brass money. In 1690, pennies were struck of a mixture of lead and tin, and crown pieces of white mixed metal. In June, the half-crowns were called in, and re-issued as crowns. People were forbidden to give more than 30s. in brass or copper money for the French louis of gold, or for any guinea more than 38s., under pain of death and forfeiture. Counterfeiting this coin was declared high treason.

269. The metal of which this money was made was a mixture of old guns, broken bells, copper, brass, pewter, and the refuse of metals, melted down together, and in reality was worth about 3d. or 4d. the pound, but by the last issue it was made to be current at about £10 sterling the pound. In twelve months time there was coined in weight of metal 389,724 pounds, to be current at the nominal value of £1,596,799, and from the subsequent raising of the half-crowns to crowns, the nominal value was increased to upwards of two millions. When the king was finally driven out of Ireland, only £22,489 was left in the Mint. Immediately after the battle of the Boyne, King William issued a proclamation reducing this base money to its real value as metal. The crown pieces were reduced to one penny, and the shillings to a farthing. In 1693, it was totally abolished, and a proper coinage issued instead. In 1696, the disorders of the English coinage extended to Ireland, and guineas were raised to 26s., and the shilling to 1s. 2d. In 1697, much forged and base coin was imported from Scotland, and much counterfeited gold and silver money was in circulation. In 1701, the values of the foreign gold and silver coin were reduced to their former rates.

270. Anne coined no money for Ireland, but issued some regulations regarding the current foreign coins. They were to be received, if light, upon paying two-pence for every grain deficient in gold, and 1½d. for every ¼ dwt. in silver. In 1718, the lord justices ordered that gold and silver money should only pass by weight.

271. In 1722, George I. granted an exclusive patent for fourteen years to a Mr. Wood to coin halfpence and farthings for the use of Ireland; the whole quantity for that space of time to be

limited to 360 tons of copper, a pound of copper to be coined into 2s. 6d. One hundred tons were to be issued during the first year, and twenty during each of the remaining thirteen. A rent of £800 per annum was to be paid to the king, and £200 to his clerk comptrollers. If the whole quantity of copper had been coined, the 360 tons, at 2s. 6d. per pound, would have amounted to £100,800 in current value. But according to the report of Sir Isaac Newton, the copper was not worth in the market above 12d. or 13d. the pound, and might be purchased in Bristol for £40,320, and consequently the difference in favor of the patentee would have been £60,480, out of which, deducting the reserved rent of £14,000, the profit of the patentee would have been £46,480. But the coins were not even struck of their stipulated weight, and consequently the loss to Ireland would have been much greater. It was found that their weight varied from 120 to 96 grains, so that the loss upon some sorts was 30 per cent. more than even allowed by the patent.

272. Be that as it may, however, it is certain that the coinage was very much wanted, and there is no doubt that it was extremely well executed. Wood himself, though contemptuously designated as a low mechanic, and a hardware man, in the controversy we must now notice, was in fact a great proprietor and renter of iron mines, and he was the lessee of the mines in the crownlands in thirty-nine counties. He owned, besides, several large iron and copper works. There was, consequently, no impropriety in his executing the work, any more than in Boulton and Watt executing the copper coinage of England in 1797. Under other circumstances, the new coinage would probably have been received with favor.

273. But there was at this time in Ireland, a man of turbulent and discontented spirit, Swift, the Dean of St. Patrick's, of a bitter and malignant temper, beyond even the usual bitterness of malignancy of the factions of those days. Hating with all the hatred of a renegade the party in power, seeing his hopes of advancement for ever blasted by the utter destruction of the party he had adopted, its leaders proscribed and in exile, and doomed to live among a people he despised, and in a country he detested, he had long been seizing every opportunity to inflame the minds of the Irish against England. Already, in 1720, he had, with his powerful invective and satire, quashed the project for establishing a National Bank in Dublin. The imaginary grievance of Wood's half-pence gave him the opportunity of inflaming the minds of the people to the verge of civil war. He had written a pamphlet in 1720 to excite the Irish to use nothing but home manufactures, for which the printer was prosecuted, and the jury overawed into giving a verdict for the Crown by the Chief Justice. There were some circumstances, however, to lay hold of in Wood's patent. It had been passed without consulting the Lord Lieutenant or Privy Council of Ireland. The chief Whig family, the Brodericks, were in an ill humour with Walpole, and opposed the grant, and Carteret fomented the opposition to embarrass his rival in the cabinet. The Parliament was thus easily persuaded to consider itself insulted, and addressed the Crown to stop

the coinage, as involving a mark of subjection to England. The Dean was not slow to seize the opportunity. Three letters appeared in the papers, signed M. B. Drapier, attacking the new coinage as regarded its value and weight. There was nothing in these papers but the most legitimate objections, expressed in so cutting and masterly a style, that every one knew that the *Drapier* could be no other but one man. The most prodigious ferment immediately arose. The tradesmen to whom the new coins were consigned gave public notice that they would have nothing to do with them. Associations were formed to refuse them. Apprentices and errand boys told their employers they would not take these drossy half-pence, "for they could get neither news, ale, tobacco, or brandy for such cursed stuff." Swift preached openly against the new half-pence, as well as writing. He poured out a perfect fire storm of ballads, satires, squibs, and libels, which were propagated by hawkers. Riotous processions burnt Wood in effigy. No man's life was safe who was supposed to favor him. The most treasonable and libellous pamphlets circulated freely, without the Government daring to notice them, so long as they contained some mention of Wood's half-pence. It was quite clear that an attempt to enforce their circulation would produce a civil war.

274. Walpole, at last thoroughly alarmed at the state of things, tried to back out gradually from his position, without too manifest a confession of the defeat of the government. It was proposed that the issue should be reduced to £40,000. This, however, did not pacify the people. By a stroke of policy, the minister determined to send Carteret, who embarrassed him in the cabinet, and who for that purpose had fomented the opposition, as Lord Lieutenant of Ireland. The people being now thoroughly roused, the Dean, in a fourth letter, threw off the mask, and asserted the independence of Ireland. Carteret was obliged to offer a reward of £300 for the discovery of the author, whom every one knew. The printer, Harding, was seized and imprisoned, and a crown prosecution begun against him. One day, at a levee, the Dean, to the consternation of the courtiers, burst through them, and demanded of the Lord Lieutenant, in a boisterous tone, why a poor tradesman, who had done nothing but publish three letters for the good of his country, was thus treated. Carteret, who must have been laughing in his sleeve at the solemn comedy, replied with dexterous urbanity,

"Res dura, et regni novitas, me talia cogunt Moliri."

to the infinite relief of the bystanders.

275. The grand jury ignored the bill, notwithstanding all the browbeating of the Chief Justice, who had been just barely successful a few years before in getting a verdict against the printer of one of Swift's former pamphlets on trade. The next grand jury of the county and city of Dublin presented Wood's scheme as a fraud and a cheat, and expressed their gratitude to the patriots who had exposed it. The Drapier now was more treasonable than ever, and the remaining letters are more political than economical. At last, seeing that the scheme was hopeless, Wood was

obliged to surrender his patent, and received a pension of £3,000 a year for 12 years.

276. Factitious as the Dean's outcry against the halfpence was in the main, he had one strong point at least in his favor. The manner in which Wood's patent was carried through was certainly a slight to the country. The former patents had been passed under the great seal of Ireland; and besides that, the patentees had always been obliged to buy back their own coin on demand in gold and silver, which indeed was the reason why they abandoned them as unprofitable. Wood's patent contained no such stipulation.

277. In 1725, a proclamation was issued to make the new gold coin of Portugal current in Ireland. It was of the weight of 18 dwts. 9 grns., and made current at £4, and its subdivisions in proportion. The complaints of the want of small change were as loud as ever, and the usual consequence had followed, namely the issue of tokens by private persons. Numerous persons in the north and other parts of the kingdom, made copper and silver tokens, which they passed as promissory notes among their workmen, customers and neighbours, those of copper for twopence, and those of silver for threepence. The copper ones had on them, *I promise to pay the bearer twopence*, and the silver ones, *I promise to pay the bearer threepence*, and each had the name and address of the person who issued them. In Dublin they were even higher. One Maculla, a brazier, issued a neat copper penny and half-penny, having on one side, *I promise to pay the bearer on demand twentypence for these*, and on the reverse, *Cash notes val. received, 1729, James Maculla, 1d. or ½d.* In order to remedy these inconveniences, the government, in 1736, ordered 50 tons of copper to be coined five sixths into halfpence, at the rate of 52 halfpence, and the remaining one sixth into farthings at the rate of 104 farthings to the pound weight. The cost of this to be borne by the crown, and any profits above the expense of coining to go to the nation. This was done, and the new coinage was issued for circulation in April, 1737, and was considered a very fine specimen of coinage.

278. The disproportion between the values of the gold and silver coins, compared to the value of the metals in the markets of the world, produced their usual consequences. Gold was over-rated by about 2½ per cent., and the silver coin was melted down, and exported in large quantities, in defiance of all the laws and penalties to the contrary. To remedy this many plans were suggested, and many pamphlets written. The government adopted the plan of lowering the rating of the gold coin. The guinea was rated at 22s. 9d.; the moidore at 29s. 3d.; the quadruple pistole at £3 13s.; the Louis d'or at 22s.; and the Portugal gold coin at £3 17s. 8d. But Simon says the government mistook the remedy. The guineas were generally light, so that any one who had 100 of them, instead of having £113 15s. of real value as he ought to have, had not in fact more than £106 5s. at a moderate medium. The owner of 100 moidores of full weight had before the reduction 150 pounds, or, £144 11s. 8d., if according to Newton, they were worth 27s. 9d. English, which was 29s. 11d. Irish. By the proclamation they were reduced to 29s. 3d., and therefore the loss upon 100, would be £5 8s. 4d.,

whereas the loss upon 100 light guineas would be £7 10s. Upon £150 of the current English shillings and sixpences, there was, on an average, a deficiency of £34 12s. 3d. Simon says that the silver ought to have been raised to an equality with the gold, which would have prevented the melting and exportation of the silver coinage, which, in 1737, was so scarce that a well preserved half-crown was a great rarity even among the curious. They disappeared as soon as they were issued. The only current silver money was English shillings, not worth more than 9d. or 10d., and sixpences not worth a groat. The reason of this was that silver was sold at 5s. 6d. the ounce in England, and 5s. 9d. the ounce in Ireland, making a profit of about £7 1s. 9d. per cent. on exporting it.

279. Nothing requiring particular remark occurred till 1804, when the coinage of Ireland was again in a most disgraceful state. The best description of coins was silver, but so light that 21s. were not really worth more than 9s. The total disappearance of the good money was greatly caused by the extravagant over-issues of the Bank of Ireland, and gave rise to the appointment of the Committee of the House of Commons on

Irish Exchanges, whose report is fully noticed under BANKING IN IRELAND (§ 342.) An attempt was made by some of the members of this committee to procure an Act to assimilate the Irish and English money of account; but it did not succeed until 1825, when an Act (Statute 1825, c. 79) was passed to assimilate the currency and monies of account throughout the United Kingdom of Great Britain and Ireland. By this it was enacted that all payments of every description, contracted to be made in Irish currency before the passing of the Act, should be satisfied by payment of 12-13ths of the amount in British currency. Provisions were made for changing all sorts of sums from Irish into English currency. The Irish copper coinage was then called in, and exchanged for British copper money; and all bankers were to call in their notes payable in Irish currency, and re-issue them payable in British currency.

Essay on Irish Coins, and the Currency of Foreign Monies in Ireland. By James Simon, with Mr. Snelling's supplement. Dublin, 1810.

A view of the Coinage of Ireland. By John Lindsay. Cork, 1839.

Table shewing the successive depreciations of the Gold and Silver Coinages of England and Scotland, from the Conquest to the present time.

ENGLAND.										SCOTLAND.					
SILVER.					GOLD.					SILVER.			GOLD.		
A.D.	Fineness.	Alloy.	Current Value, or Mint Price of 1 lb.	Ratio of Gold to Silver.	Fineness.	Alloy.	Current Value, or Mint Price of 1 lb.			A.D.	Fineness.	Alloy.	Current Value, or Mint Price of 1 lb.	Fineness.	Alloy.
1066	Oz. Dwt. 11 2	Oz. Dwt. 0 18	£ s. d. 1 0 0	1 to 9	Oz. Dwt. 11 2	Oz. Dwt. 0 18	£ s. d. 1 0 0			1066	Oz. Dwt. 11 2	Oz. Dwt. 0 18	£ s. d. 1 0 0	Oz. d. gr.	lb. oz. dwt. gr.
1300	.....	.....	1 0 8	" 10	.....	.....	.....			1306	.....	.....	1 1 0	.....	.....
1344	.....	.....	1 2 2	" 12 $\frac{1644}{2408}$	.....	.....	15 0 0								
1345	.....	.....	.....	" 11 $\frac{1647}{2405}$	.....	.....	13 8 4								
1346	.....	.....	1 2 4	" 11 $\frac{1647}{2405}$	.....	.....	.....					
1347	.....	.....	1 8 8 In halves 1 3 5 In farthings 1 2 6 In Pence.	.....	.....	.....	.....				
1347	.....	.....	1 8 8 In halves 1 3 5 In farthings 1 2 6 In Pence.	.....	.....	.....	14 0 0								
1352	.....	.....	1 5 0	" 11 $\frac{121}{205}$	.....	.....	15 0 0			1366	.....	.....	1 5 0	.....	.....
1412	.....	.....	1 10 0	" 10 $\frac{120}{275}$	.....	.....	16 13 4			1367	.....	.....	1 9 4	11 18 18	0 1 6
1464	.....	.....	1 17 6	" 11 $\frac{51}{245}$	.....	.....	20 16 8			1380	.....	.....	.....	.....	.....
1465	.....	.....	.....	.....	.....	.....	22 10 0			1388	.....	.....	1 12 0	.....	.....
1526	.....	.....	2 5 0	" 11 $\frac{121}{205}$	.....	.....	27 0 0			1424	.....	.....	1 17 6	.....	.....
1543	10 0	2 0	2 8 0	" 11 $\frac{121}{205}$	.....	.....	25 2 6			1451	.....	.....	8 4 0	.....	9 8 4 14
1545	6 0	6 0	.....	" 10 $\frac{120}{275}$	.....	.....	.....			1456	.....	.....	4 16 0	.....	.....
1546	4 0	8 0	.....	" 6 $\frac{2}{11}$	.....	.....	.....			1475	.....	.....	7 4 0	.....	10 2 0 20
1547	.....	.....	.....	" 5	.....	.....	.....			1484	.....	.....	7 0 0	.....	10 5 7 9
1549	6 0	6 0	4 16 0	.....	.....	.....	30 0 0			1529	11 0	1 0	9 12 0	.....	.....
1550	8 0	9 0	.....	" 5 $\frac{5}{23}$	.....	.....	34 0 0			1556	.....	.....	13 0 0	11 0 0	1 0 0
1552	11 1	0 19	.....	" 4 $\frac{728}{945}$	.....	.....	28 16 0								
			.....	" 2 $\frac{294}{965}$	.....	.....	.....					

On the Coinage of France.

280. In order to render the history of the coinage of France intelligible to the reader, we prefix the measures of weight and fineness formerly in use.

The fineness of gold was measured as in England by the *Carat*, or the 1-24th part.

The fineness of silver was measured by the *Denier*, which was the 1-12th part. The *Denier* was divided into 24 grains, and each grain into halves, quarters, and eighths.

The measure of weight first used was the *Livre* or *Pound*, of 12 ounces, which were rather larger than the Roman ounce. The *Marc* of 8 ounces was, however, afterwards substituted for it, and the divisions of the *Marc* were,

The Marc was divided into	8 ounces.
The Ounce	" 8 gros.
The Gros	" 8 deniers.
The Denier	" 24 grains.

The *Denier* and the *Grain* were thus both measures of weight, as well as fineness.

281. The Romans established mints at Treves, Lyons, and Arles, at which they coined both gold and silver; and when the Franks conquered the country, they adopted and continued the coinage already existing. The gold coinage consisted of Sols, Demi Sols, and Tiers de Sol. The Sol was coined at the rate of 72 to the pound, and weighed 96 grains, or 6 to the ounce. These ounces were, however, 1-9th lighter than the French ounces subsequently adopted. The Roman pound of 12 ounces was only equal to 10½ French ounces. The sols, therefore, weighed 85½ grains, *poids de marc*. The half sols weighed 42½, and the tiers de sol 28 4-9th grains. The sol continued to be the general name for the gold coin until the Capetian dynasty, when the *Florin* was adopted.

282. Gold coins were ordered to be made of pure gold, but some portion of alloy was sometimes mixed with them. In order, probably, to guard against this, the Roman Emperors since Valentinian, had adopted the practice already spoken of, §56, as being in use by the Babylonian kings, of melting all the money received as tribute, and keeping it in masses of bullion in their treasuries, and coining it as required, or even paying it away in ingots. The kings of France adopted this practice, as did many of the French nobility, until Philip le Bel. In contracts and laws, payments and fines were directed to be paid in pounds, or marcs of gold and silver.

283. The Salic law proves that the sol of gold was equal to 40 deniers of silver, (Tit. 1. § 5. Tit. 40. § 13), and the demi-sol, and tiers de sol in proportion. These deniers were of silver, 11 den. 12 grns. fine, and weighed 21 grains. From these pieces it appears that silver was to gold, as 1 to 10.

284. Money of copper, and base metal, of the Merovingian race is also in existence, but so worn that it is not possible to ascertain its weight, value, or denomination.

285. Besides these there was the sol of silver of 12 deniers. It has been much disputed whether this was an actual coin, or only money of account. Some writers affirm that there were actual coins of that denomination; but none have ever been found. It would certainly appear more

probable that, like the shilling in England, until coined by Henry VII., it was merely money of account. If they had been coins, they would have weighed 345 grains; and it does not appear that any coin of that weight is known to have been struck in those times. The sol of 12 deniers is first mentioned in the 2nd Canon of the Council held in the palace of Estines, near Binche, in Hainault, by order of Carloman, son of Charles Martel, 1st March, 744. By this, all military men who held possessions from religious bodies were ordered to pay every year a sol of 12 deniers to the church, or monastery, whose tenants they were (*Le Blanc*, p. 41.). Hincmar, Bishop of Reims, speaks of the sols mentioned in the will of St. Remy, which were of gold and worth 40 deniers. It would seem, therefore, that from these different sols being specified on different occasions, that they were distinct, although some writers have maintained the contrary, saying that the same sols were sometimes worth 40, and at other times worth 12 deniers. It appears from the Capitularies of Charlemagne, that Pepin had commuted the penalties fixed in the Salic law at gold sols of 40 deniers, to silver sols of 12 deniers, and this commutation was confirmed by Charlemagne by the 41st Canon of the Council of Reims in 813, and subsequently by Louis le Debonnaire. It is also said in the Capitularies of the Council of Aix-la-Chapelle in 797, that 12 deniers made a sol of silver.

286. The quantity of silver, however, in these sols is not known. Pepin ordered that not more than 22 should be cut out of the pound weight, from which we should infer that it had previously been cut into a greater number. If, then, the sol contained 12 deniers at 21 grains, it would have weighed 252 grains.

287. Pepin, the first of the second, or Carolingian race, was elected king in 751. In a Parliament held at Verneuil in 755, he ordered that the pound weight of silver should be cut into 22 sols, of which the moneyer might retain 1 as payment for his trouble, and he was to give the remaining 21 to the person who brought the silver. By this ordinance, the earliest existing respecting the French coinage, the denier was to weigh 23½ grains, which would bring the weight of the sol to 279 grains.

288. This probably accounts for the increased weight of the gold sol, under the Carolingian race. The specimens of it which exist are much heavier than those of the first dynasty, and, according to Le Blanc, weigh 132 grains. Now, as the gold sol was rated at 40 deniers, it was clearly necessary that it should be increased in weight, if the silver deniers were. This seems to have escaped the notice of that excellent writer, who supposes, p. 89, that the proportion of gold to silver had changed to 11 to 1.

289. This retention of 1 sol out of 22 by the moneyer, seems to have been the first instance of the duty, or charge, afterwards so extravagantly abused, of *seignorage*, as it was clearly much greater than was necessary for the mere expense of coining. It was wholly unknown to the ancients. The Romans did not even take the expense of coinage, which was done at the charge of the State, as at the English Mint, since Charles II. Any private person might take

his bullion to the Mint, and receive back weight for weight in coins. Hence gold and silver in bullion were exactly of the same value as gold and silver in coin. It appears that this seignorage, or tax, was considerably increased by subsequent kings, and formed an important part of their revenue. Louis le Debonnaire granted the right of coining to the monastery of St. Medard, at Soissons, and of retaining the seignorage, to be appropriated to the services performed by them in honor of St. Sebastian. Charles the Bald granted the same privileges to the Bishops of Langres. Charles the Simple granted to the Chapel of St. Clement the 19th part of the moneyage or the tax upon the money coined at the Palace of Compiègne. Henry I. granted to St. Magloire the tenth of all the revenues of the port, except that on money, which he had already given to some one else. Philip Augustus, in 1202, in granting a lease of the Mint at Tournay, reserved to himself the third part of the moneyage levied. The private lords, too, who had the right of coining, were allowed to levy this tax. But its amount is not known from the time of Pepin, who took the 22nd part of 12 ounces, to St. Louis, who coined the marc into 58 sols, and kept back 3 sols 5 deniers for charges of coining and seignorage. This was the 16th part. A proportionate tax was levied on coining gold. The seignorage was given up by several succeeding kings, such as Philip of Valois, John, and Louis XIII.

290. This seignorage or moneyage, indeed, was one of the principal sources of revenue which the kings derived from their domain. Conjoined with the right of debasing their coin, which was expressly asserted by Philip le Bel to be an undoubted privilege of the French kings, it was exactly similar to the extravagant abuses of paper money in modern times. Charles VI., as we shall see subsequently, declared that it was his only resource to resist the damnable invasion of the English. The necessities of Charles VII. were so great that he kept back three-fourths of the marc of silver, and still more of the marc of gold. The grievances and confusion caused by this to the people were so great that they formally agreed with him to pay him *tailles* and aids in consideration of his giving up this right. Thus *tailles* and aids originated in France as a commutation of the right of debasing and tampering with the coinage, as we have already seen that in England a tax was levied in commutation of moneyage, which was attempted to be introduced after the Norman Conquest. Under Louis VII. and Philippe Augustus, towns and whole provinces agreed to a triennial tax in consideration of the king abandoning this alleged right.

291. Charlemagne introduced a change of great importance in the coinage of France, which was adopted throughout Europe, though at what time is not certain. It appears from the Chronicle of St. Gal that in 779, which was the eleventh year of his reign, there was a severe famine in France. To appease the wrath of Heaven, prayers, fasts, and alms were ordered. A council royal was held at Heristal, and its orders are inserted in the Capitularies. Every bishop and abbé, and abness who could, were ordered to give a pound weight of silver, or its value; the less rich ones, half a pound, and the poor ones, 5 sols.

The rich counts were to give one pound weight, and the poorer ones half a pound. The king's vassals who held 200 houses, were to give half a pound; those who held 100 houses, 5 sols; those who held 50 houses, an ounce and a half of silver. Besides that, they and their households were to fast two days, or to commute it, the rich for three ounces of silver, the middling ones for 30 deniers, and the poor ones for 15. It thus clearly appears that the livre was divided into 20 sols, and the denier weighed 25 12-20ths grains. Existing specimens fully confirm this calculation. So also 20 deniers weighed an ounce. Le Blanc says that the Roman ounce weighed 576 grains, which were equal to 512 French grains *poids de marc*. The division of the pound weight into 20 sols, and the sol into 12 deniers, at this time, is fully confirmed by contemporary writers.

292. This division is also confirmed by an ordinance of Charlemagne in 805. Those who failed to appear at the muster of the army after the ban or summons was published, were to be fined 30 solidi, or a pound and a half. He also appointed that those guilty of sacrilege should be fined 30 pounds, or 600 solidi, as is stated in a decree of Pope John VIII., which was published at the Council of Troy, in Champagne, in 879.—(*Le Blanc*, p. 95).

293. Other authors might be quoted if necessary to prove this, but the foregoing are enough. From this time, however, the pound weight was divided into 20 solidi, or shillings, which thus became the pound in tale. And thenceforward 20 solidi, or shillings, were called a *pound*, even after the weight of the solidus, or shilling, was greatly diminished from the twentieth part of the pound weight. This has been done in England, Scotland, France, and Italy, and gives the solution of that puzzle, which is so mysterious to many persons—the meaning of the pound sterling, and which so many persons believe to be an inscrutable myth. Le Blanc says, p. 96, that the sols of Charlemagne were equal to 40 sols of his day (1692).

294. Charlemagne not only founded a new epoch in the denomination and weight of the coinage, but it is also clear that he adopted a new standard pound. The Merovingian race used the Roman pound, which had been long established in the country. Charlemagne took the French pound as his standard measure, which was 12 ounces, *poids de marc*, and was heavier than the Roman pound, as 12 ounces of the latter are equal to only 10½ of the former. As a proof of this, le Blanc cites the following circumstances: First, that the existing deniers of Charlemagne, several of which are well preserved, weigh from 27 to 28 grains, and 28 4-5ths grains, were the 20th part of the French ounce used in his day (1692). From the weight of these deniers, the sol should weigh 345½ grains, *poids de marc*, which was very nearly two thirds of the ecu of 60 sols. Besides these, it appears from documentary evidence, that Charlemagne instituted a new pound. In a deed of the church of Osnaburg, he speaks of "Sixty solidi of our weight." In another deed of the Emperor Frederic II. in 1234, a payment is ordered of 100 pounds of the weight of Charles. Arnold of Lubeck speaks of 4,000 marcs, to be measured by the public weight, which Charlemagne instituted.

Grutter gives the figure of a copper weight with the inscription on it, *pondus Caroli*.

295. In 794, Charlemagne issued a regulation respecting his money, it appears that during his perpetual wars, the money had been somewhat debased, either in weight or alloy. Being at Frankfort that year, he ordered that the deniers he had recently struck should be current throughout the whole country, and should be legal tender in all transactions between man and man, so long as they bore his monogram, and were of legal weight and fineness. Any one who resisted his decree, or refused to receive them, should be fined. Forgers and false coiners, however, created much confusion, and to put a stop to this, he issued a decree from Thionville, in 805, that no money should be coined except in his own palace. This decree was repeated in stronger terms in 808, and the money struck there was stamped with the words *Palatina Moneta*. Louis le Debonnaire, however, appears to have allowed mints in several of his great towns.

296. Three regulations concerning the money are preserved in the Capitularies of Louis le Debonnaire, (814). The first of these, made in a parliament held at Aix-la-Chapelle in 819, enacted penalties against all who refused his money, and also was the first which enacted a penalty against false coiners, who, on conviction, were to have a hand cut off. Intendants were sent throughout the provinces to publish and enforce these ordinances. Existing specimens of his money prove that it was of the same weight as that of Charlemagne. His denier weighed 28 4-5ths grains, which, at the rate of 240 to the pound, were exactly 6,912 French grains, or 12 ounces *poids de marc*. The sol, therefore, contained 14 deniers 9 3-5ths grains. But it certainly does not seem probable that any actual coins of this denomination were struck, as in the ordinances of Charlemagne, Louis le Debonnaire, and Charles the Bald, respecting money, nothing but deniers are mentioned.

297. In 823, the coinage seems to have fallen into confusion, probably from clipping and forging, and in a Parliament held at Attigni, all the money previous to his reign was called in and decreed. In 829, the penalties against all who refused good money were republished.

298. Charles the Bald (840) had the territory known as France allotted to him by his father, Louis le Debonnaire. In 854, in a Parliament held at Attigni, commissioners were appointed to travel through the kingdom to examine the state of the coinage and enforce the laws against clip-pers and coiners. These were renewed in 861. A new punishment was added against those who refused to receive good money in payment. They were to be branded with a red-hot penny on their foreheads.

299. In a Parliament held at Piste, in 854, important regulations were made respecting the coinage. Persons of good character were to be appointed under oath in all cities and towns, to watch the state of the coinage, and see that no one refused good money, or was compelled to receive bad. After the feast of St. Martin, all except new and weighty money was decreed, and might be seized if offered in commerce. Money was forbidden to be struck anywhere except at the Palace, at Quentovic, Rouen, Reims, Sens,

Paris, Orleans, Chalons, Mella, and Narbonne. The masters of the respective mints were to engage moneyers under solemn oath to perform their duty faithfully, to coin none but pure and weighty money, to refine honestly all the bullion brought to them, and to give back the true value in good money. Any one suspected of dishonesty was to purge himself by the ordeal of fire or water. Any one convicted of malpractices should lose his hand, as a false coiner. Every one was ordered to bring his money to the mints to be re-coined, or exchanged for new, before the 1st of July, after which it could not be offered in payment under heavy penalties. Any one who offered light or base money might be compelled to say whom he got it from, so as to go back to the person who had coined it, who was to be severely punished. Counts and other officers were to guard vigilantly against false coiners, and if any fled to refuge, they were to be given up on demand. All persons were forbidden to put any alloy into gold or silver, or to sell any except of absolute purity, under the penalty of losing their hands. The pound of the purest gold was ordered to be sold throughout the kingdom for 12 livres of silver, in new deniers; less pure gold might be sold at ten livres. The deniers of Charles the Bald appear to be heavier than those of Charlemagne, for they weigh thirty-two grains, which only gives eighteen to the pound. The remaining feeble princes of the Carlovingian race did not do anything regarding the coinage calling for notice.

300. The Capetian dynasty acceded to the throne in 987. They continued the coinage as they found it existing, and until 1103 it was of absolute purity. The deniers were the standard coins, as smaller ones of alloy were struck for small change. Before 1068, the name of *Sol d'or* was discontinued, and that of francs, or florins adopted. It is not certain when this was done. But the gold coin is spoken of as francs, or florins, in a deed of gift to the monks of Pontoise of that date. This shews that John Villani is in error when he says that they were first struck at Florence, in 1262. Gold florins also are spoken of in the history of Normandy, under the date 1067. By this time great confusion was caused by every considerable proprietor in the country assuming to himself the right of coinage. This had been done in consequence of the weakness of the last Carlovingian kings. Each of these had his own weights and measures, so that there were sols and deniers of Paris, Tours, Mans, Anjou, Poitou, Chartres, Bordeaux, Toulouse, Nevers, and multitudes of others. The Dukes of Paris, however, having become kings of France, the Paris weights were adopted as the royal money. The earliest notice of the Paris sol is in 1060, the first of Philip I. The two most important weights were those of Paris and Tours. There is much obscurity concerning the money until 1103, when it is stated in the Chronicle of Maillezai, that there was great tribulation in that year, and the deniers were struck, debased with copper, instead of silver. The debasement was carried to the extent of one third, or even two thirds of alloy.

301. In the reign of Philip I., sometime between 1073 and 1093, the pound weight of 12 ounces was abolished as the standard, and the

marc of 8 ounces adopted. This is shown by the fact, that up to 1075 the livre is always mentioned in deeds, in 1093 and subsequently it is always the marc.

302. Louis VI. (1108) issued a very debased coinage in 1112; it was half copper and half silver. He did it again in 1120, which made such confusion that he was obliged to promise he would not debase it any further. In 1144, the marc of silver was rated at 40 sols. In 1158 it was rated at 53 sols 4 deniers of Tours. By a decree of the king of England as Duke of Normandy, respecting the exchange of money, in 1158, it appears that the sol of Tours was greatly more diminished than any other. For while the marc of silver was rated at 53s. 4d. of Tours, it was rated at 13s. 4d. sterling. The gold money of Louis VI. and Louis VII., was the *franc d'or*, which weighed 76 grains, and was a remarkably fine coin for that time. It had the beautiful fleur de lis as an emblem. It appears certain, then, that the florin does not originate with the Florentines, as is generally supposed, but they probably adopted it from the French. In 1159, Louis VII. exempted the religious house of St. Magloire from the tax of moneyage, which was levied every three years as a compensation for giving up the right to debase the coinage.

303. Great obscurity hangs over the money of Philip Augustus (1180), and Louis VIII (1229); but we have certain information of that of St. Louis (1226). He restored the coinage to a certain degree of fineness and fixity of weight; and when the following kings produced the greatest misery and confusion by debasing their money, it was always the money of St. Louis that the people demanded, and until the time of Philip of Valois, it was always the standard returned to after every depreciation. Nevertheless we have no direct information of the period, and it was only by the edicts of his successors that we are enabled to ascertain his standard. It appears from these decrees that St. Louis coined gold *deniers à l'agnelet*, which were commonly called *moutons d'or*, from bearing the *agnus dei* as a device. They were made of pure gold, 59 1-6th to the marc, weighed 3 den. 5 grs., and were worth ten Paris sols, or 12 sols 6 den. of Tours, which then were the standard weight. This money became very celebrated throughout Europe, and was continued till Charles VII., and was imitated by several foreign sovereigns.

304. St. Louis also coined the *gros Tournois* of silver, which also became a very celebrated coin. It was the largest silver coin that had yet been struck in France. There were 58 to the marc, and weighed 3 deniers 7³/₄ grains of silver, 11 den. 12 grs. fine. Le Blanc says it was worth 9 sols 8 den. of his time. Out of the 58 coins struck out of the marc, St. Louis ordered that 3 sols 5 deniers Tours, might be retained as seignorage and cost of coining, and the remainder, 54 sols 7 deniers, given back. He also coined deniers of Paris, at 221 to the marc, and deniers of Tours, 220 to the marc. It appears by an ordinance, that one penny sterling was equal to four pennies Tours.

305. Philip le Hardi (1270) continued the money of his father.

Philip le Bel (1285) has had the honor of being singled out by Dante as a false coiner. Par. xix.

"Li si vedrà il duol che sopra Seuna
Induce, falseggiando la moneta."

"There shall be seen the woe that he shall pour
Along the Seine, by uttering coin debased."

Wright's Dante.

He is said to have been the first to adopt the expedient of debasing the coin on account of war. Though how such an extraordinary opinion became current it is not easy to imagine, considering that the coinage was already diminished to about one fourth part of its original weight, and abundance of base money had been issued long before. At all events Philip has an abundance of royal companions. From this reign we have certain information respecting the French coinage. The Registers of the Mint begin from 1293, the 8th year of his reign. Philip coined five species of gold money, the *gros royal*, worth twenty sols of Paris; the *petit royal*, worth eleven sols of Paris, and cut at the rate of seventy to the marc, which was then rated at forty-four pounds. These were of pure gold. The *masse*, or *royal dur*, was of gold, twenty-two carats fine, sometimes also called the *grand florin* by the people; the *agnelet*, worth fifteen sols of Tours; and the *reine*, of which no specimens exist. He coined three sorts of silver coin, the *gros Tournois*, and its half and third parts. The *gros* was cut at the rate of fifty-eight to the marc, 11 den. 12 grs. fine, and worth ten and a half Paris deniers. For the first nine years of his reign, Philip's money was the same as that of St. Louis, but his wars with the English and Flemish exhausted his finances. His debasements began in 1294, when all persons who had less than 6000 livres of rent, were ordered to carry their plate to the Mint, under the penalty of forfeiting half what they concealed. The same ordonnance forbade any one to export gold, silver, or bullion money from the kingdom, and ordered every one to receive the new debased money. In order to obviate the confusion and distress caused by this, he issued letters patent on the 1st May. 1296, pledging all his property, and that of his successors, as well as the revenues of his domain, to indemnify all who would take his base money. The queen was joined in this promise. Nevertheless, this debasement of the coinage produced infinite distress and disorder both in France and neighbouring countries, and says Le Blanc, p. 187, the successors of Philip le Bel followed his example, and by this bad policy ruined commerce, which made the kingdom unable to resist her enemies. The council of the king who advised this, and made a profit out of it, did more to ruin the kingdom than all the attacks of the English. This debasement increased so fast that in 1301, the denier was reduced to the third part of its value.

306. The distress caused by the base money was so intolerable, that in 1303, the bishops offered to give the king two-twentieths of the income of all their benefices, if he would agree for himself and his successors, not to debase their money without an indispensable necessity, which was to be determined by the secret council, and then confirmed by an assembly of barons and bishops. This proposition, however, was refused. As the war with Flanders still continued, all sorts of persons associated and offered the king to equip a certain number during the months of June, July, August and September, on condition

that he would restore his money. He agreed to this, and promised to return to the money of St. Louis within a year. In December, the people again petitioned him to restore the standard of St. Louis. A proclamation in accordance with this prayer was issued, desiring the people to bring in their money, within fifteen days, to the Mint, and have it exchanged for good, at the expense of the king. These promises were renewed in 1304. On the 15th June, the king promised the clergy, that in consequence of their liberality, the good money should be issued at the feast of All Saints next. Pope Benedict XI., in order to conciliate the king with a gift which cost him nothing, gave him one year's revenue of the prebends who died in the kingdom, and the tithes of all the benefices for two years, to help him to restore his money to its ancient standard. The clergy, however, resisted this bill, saying that the king had already pledged his own property to restore the coinage, and indemnify the sufferers. This refusal prevented the restoration of the money, which, in fact, was still further debased, so that the marc of silver, which at the beginning of his reign was rated at fifty-five sols six deniers of Tours, in 1305, was rated at a hundred and seventy sols.

307. At last, however, the king could no longer resist the complaints of the people. The marc of silver was reduced to fifty-five sols six deniers, and *gros tournois* were struck at that rate of the standard of St. Louis. But the base money was allowed to be current along with the good, without reducing it to its proper value, which caused great confusion. For the *gros*, which by the ordonnance of the 3rd May, 1305, was ordered to pass for ten and a half of the new deniers of Paris, was ordered by another ordonnance to pass for thirty-one and a half of the current deniers.

308. The king, however, did not long remain on his good behaviour. Listening to the pernicious advice of two Florentines, Musichati and Bichi, he soon debased it as much as ever, so that the price of the marc soon returned to one hundred and sixty-eight sols. This new fraud gave rise to a horrible sedition in Paris. The people wished to pay in debased money, not being able to obtain the good, except at a considerable loss. The rich demanded payment in good money, not choosing to put up with the loss on the bad. The people reduced to despair, rose and pillaged the house of Stephen Barbette, the master of the Mint, who was supposed to be the author of this measure. They then besieged the Temple where the king resided, knocked over his dinner, and committed many other excesses. The people were with difficulty appeased, and the ringleaders punished.

309. The Estates met at Paris, and by their advice the king ordained that after the next feast of St. Remy, good money only should be issued, so that the good *gros tournois* which then passed for three base deniers, should only pass for one, and the base ones reduced to their proper value, namely, three for one, and the other money in France should be reduced to its proper value. That the marc of silver should be brought back from one hundred and sixty-eight sols, to fifty-five sols six deniers, and that the marc of gold should remain as before, at forty-four livres tournois.

Thus good money was restored from the 8th September to January, 1311. In 1308, all foreign money was decried, and forbidden to be current. In 1309, this order was renewed, and particularly the sterling or pennies of England, and the florins of Florence were decried. In 1310, the gold *reines* were decried, and the *masses*, or *roiaux durs* coined out of them. The king gave 154 marcs of the best coined of these as the dowry of Isabella of France, on her marriage with Edward II. of England.

310. In 1311, the king began debasing his money again, to the great dissatisfaction of the people. Great quantities of counterfeit money were soon in circulation. By an ordonnance of June 1313, several of the current coins were altered in their rating, and many others cried down, by which many merchants were ruined. He was then forced to return to the standard of St. Louis, but this only lasted till August 1314, when he began a fourth debasement of the money. This debasement, as well as the repeated changes in the rating of the coins, so enraged the people, that the king, on his return from Flanders, found the whole country full of sedition and uproar, caused by the new taxes and the base money. On the 2nd October, the king ordered all the chief cities of the kingdom to send two or three notables to Paris by the 1st of November, to remedy the disorders in the coinage. The king, however, died on the 24th November, and the advice of the meeting was not followed. The king, however, was so sensible of the evils of debasing the coinage, that in his will, he above all things most earnestly recommended his son to coin none but good money.

311. Louis Hutin (1324) to his great indignation, found the treasury empty, and angrily asked the ministers of his father what had become of all the tithes collected by his father, and the profits on debasing the money. The empty state of his treasury not only prevented him restoring the money according to his father's injunctions, but made him debase it still more. This, together with some new taxes, caused a nearly general revolt throughout the kingdom. Charles of Valois was sent to pacify the people, and he persuaded them to state their grievances in writing, and he promised to obtain redress for them. The cahiers of grievances sent in by the States, unanimously demanded the restoration of the money to the standard of St. Louis. The king was obliged to promise this restoration, and began by compelling the barons and bishops to reform their money, which was as bad as his own.

312. It was at this time suggested to the king, to bring the money issued by the barons and prelates under his own control, and forbid them to coin any except of a certain regulated weight and fineness, and that each should bear a peculiar mark. The king approving of the idea, but seeing the difficulty of putting down the frauds committed by them, determined to deprive them of the right of coining altogether. But the opposition was too strong for him, and he was obliged to content himself with fixing their weight, fineness, and mark. An ordonnance to this effect was issued in 1315. Le Blanc, p. 198, gives the names of thirty-one of these barons and prelates who were allowed to coin, and the regulations affecting their money. There were, however,

several others who enjoyed this right, not mentioned in the ordonnance. It is remarkable that different degrees of fineness, as well as different weights, were prescribed for different persons, as well as the rate their money should exchange for with the royal money. The king then, on the 15th of January, 1316, issued a proclamation carefully regulating his own money according to the standard of St. Louis. The coins that were to be current were named, and all others, whether of gold or silver, or bullion, were decried and ordered to be brought into the royal Mints within one month. All remaining out after that was to be forfeited, and in order to increase the quantity of money, no person was to make any vessel of silver for two years. It was forbidden to give more than the mint price for gold or silver. After having wrought this good work, Louis Hutin died 5th June, 1316, leaving a posthumous son, who died a few days after his birth.

313. Philip le Long (1316) coined no gold but the *moutons* of the same weight and fineness as those of St. Louis, and his brother Louis Hutin. On the 23rd June, 1317, he issued a proclamation stating that in consequence of the barons and prelates having disobeyed the ordonnance of Louis Hutin, regarding the amendment of their money, some having greatly debased theirs, and counterfeited that of the king, the people were pillaged, prices raised, and trade stopped. To stop these disorders, the king sent bailiffs to seize all the money of the barons and prelates, and send it to Paris to be assayed. They were forbidden to coin any more till further orders. The king of England himself was not exempted. By a commission of December 13th, 1320, Peter of Cahors, master of the Mint, was ordered to go to Bordeaux, and other places in Guyenne, and seize the coins struck by the king of England.

314. The evils of the private Mints were so intolerable, that the king determined to buy them up. In May 1319, he bought up the Mints of his uncle Charles of Valois, at Chartres and Anjou, for 50,000 livres. In 1321, he bought up from Louis of Clairmont, Baron of Bourbon, and Grand Chamberlain of France, his Mints at Clairmont and Bourbon, for 15,000 livres. He had fully determined that there should be in France only one currency, one weight, and one measure. But this wise purpose was frustrated by the king's death, in January 1322.

315. Charles le Bel (1322) coined gold *moutons* of the same weight as his predecessors, till 1325, when he returned to double roials of pure gold, and of the same weight as the *moutons*. He continued the *gros tournois*. All gold money except the agnel was decried, and money changers were appointed to exchange the current coins for the new ones at fixed rates. The war with the English in Guyenne led him to abandon his good intentions respecting the coinage. In 1324, he followed the example of his father, Philip le Bel, in debasing his money. The *gros tournois* rose from twelve to twenty Paris deniers. Charles le Bel died 1st February, 1328.

316. Philip of Valois succeeded in April, 1328. He coined more gold money of different kinds than any of his predecessors. They were the *parisis*, worth a Paris pound, or twenty Paris sols; the *escu*, of fine gold, from 1336 to 1347, and then twenty-three carats fine, and then further reduced

to twenty-one carats. This money became very celebrated, and more was coined of it than of any other. There were also the *lions*, the *pavillons*, the *couronnes*, the *dobles*, and the *anges*, which only continued for a very short time. By an ordonnance in 1329, the silver money was ordered to be brought back to the standard of St. Louis, and this was done in 1330. To encourage people to bring their money to be coined, and to gain the esteem of God and the people, he gave up all profit on the coinage. In 1332, every one was ordered to bring the third part of his plate to the Mint to be coined, and nothing but the cost of coinage was to be charged, so that sixty gros tournois being coined out of the marc, only two were retained for cost of coinage.

317. But this fair promise was soon disappointed. In 1336, he began to debase his money, and this was carried to such an extravagant length, that the marc of gold, which in the beginning of his reign was cut into 41 livres 13 sols, in 1342, was cut into 117 livres, and the marc of silver, which was cut into 58 sols in 1342, was cut into 270 sols.

318. In 1343, he was obliged to return to good money. But in 1350, he began to debase it again. But the restoration in 1343, was not equal to the original standard of St. Louis, as the *gros tournois*, which was then equal to 12 deniers, was declared in 1343, to be worth fifteen. And this commenced a permanent depreciation.

319. Matthew Villani says, that this depreciation of the money alienated from him the affection of his subjects. It ruined many of the merchants, and drove trade away from the kingdom. It also impoverished the barons and burghers, so that it seemed like a judgment of God, that having such numbers of barons and cavaliers who had previously been distinguished above all the world of deeds of arms, they now never met the English without dishonor. Philip, by an ordonnance of the 17th January, 1347, expressly claimed for the crown the undoubted right of regulating the moneys throughout his kingdom, and to fix their price as he pleased.

320. Notwithstanding this strenuous assertion of right, when in 1350, he determined to debase the coinage, he imposed on the officers and workmen of the Mint, a solemn oath that they would not reveal the debasement, so that merchants might not find it out.

321. The changes in the coinage are far too numerous for us to recount here. In the table annexed to this article, will be found the variations in the rating of the marc of gold and silver. When people found that the silver coins were never the same for a year together, they left off contracting in livres and sols, and adopted the gold coins, because they were not so frequently tampered with. By an ordonnance of the 22nd August, 1343, it was strictly forbidden that any one should be daring enough to contract in anything but livres and sols, under pain of forfeiting the merchandize, and being at the king's mercy.

322. John succeeded in 1350. He began by coining *escus* of gold, 21 carats fine. In 1351, he coined florins of pure gold at the rate of fifty to the marc. The usual result followed, they were immediately hoarded, and consequently the coinage of them was discontinued within a month

after it was begun. Gold *escus* were then coined, 18 carats fine. In 1354, *moutons* of fine gold were coined at the rate of 52 to the marc, weighing 3 den. 16 grs., and rated at 25 sols. During the rest of this reign the gold coins were always pure. In 1360, he coined *francs* of gold, which weighed a dram. They were rated at 20 sols, and thence also called *livres*. These coins became very celebrated, and, in fact, their dwarfed silver progeny is still the standard coinage of France. Le Blanc says, that the franc which then was rated at 20 sols, was rated at 140 in his day (1692.)

323. The misfortunes of this reign produced such derangements of the coinage, as have scarcely ever been equalled in any country either before or since. The rating of the money was changed sometimes every week, sometimes oftener! He also tried sometimes to conceal the debasement from the public by swearing the workers of the Mint to secrecy, about as sensible a proceeding as that of the ostrich. The king, however, promised to return to *tres forte monnaie*, that is, to the money of St. Louis, as soon as the war ceased.

324. But the misfortunes of the kingdom were brought to a climax by the capture of the king at the battle of Poitiers, the 19th September, 1356. The money was then more debased than ever, so that on the 21st March, 1360, the marc of silver was rated at 102 livres, or 2,040 sols! Great tumults took place at Paris, in consequence of the debased money issued by the regent, to appease which, it was necessary to summon the estates of the realm. At their meeting the bishop of Laon strongly enforced the necessity of restoring the money, on which condition they promised the regent 30,000 men. The dauphin renewed the promise of his father to coin good money, and not to change it again. In consequence of the intolerable evils of base money, he promised to coin *moutons* or *florins* of pure gold, 52 to the marc, to pass for 30 sols tournois. The estates of Languedoc having voted the king a considerable subsidy, demanded a restoration of the coinage, which was granted on the 23rd November, 1356. In accordance with this, new gros were coined at the Mints of Figeac, Toulouse, Agen, and Montpellier. But this good money was one-half alloy, and passed for 12 deniers tournois. This money, base as it was, was still one half better than the money in the other provinces, which was only four deniers fine. In January 1358, the estates met at Paris, and authorized the regent to coin debased money, and retain one-fifth of the profits for the expenses of the war. On the 30th August, 1358, the rating of the marc was reduced from 13 livres 10 sols, to 6 livres 15 sols. The misery caused by the war was so great, that they endeavoured to palliate it by depreciating the coinage, so that in March 1360, the marc of silver was rated at 102 livres, and the gold *escu* at 11 livres. In that month, however, they suddenly returned to *forte monnaie*, the silver marc was reduced to 11 livres, and the star groats which passed for 30 deniers, were reduced to two.

325. On his return from captivity, John determined to restore the coinage. On the 5th December, 1360, he issued an ordonnance from Compiègne, that new money of fine gold was to be coined at the rate of 63 to the marc, of which three were retained for seignorage. They were to be called *francs*, and to pass for 20 sols.

Gros of fine silver were coined at 84 to the marc. The marc of silver was rated at five livres, and that of gold at sixty livres; so the proportion of silver to gold was one to twelve.

326. To show how utterly impossible it is for us to convey to our readers an adequate notion of the monetary disorder of France, we may mention that Le Blanc gives a table of the variations in the rating of a single coin, the gold florin during twelve years. From March 1346, to March 1357, it underwent 118 changes of rating, varying from ten sols up to fifty-three. It was frequently changed several times in a month.

327. Charles V. (1364,) coined gold *fleurs de lis*, to pass for 20 sols. They soon came to be called by the name of *francs*, which already denoted a coin of twenty sols. From his experience as dauphin, during the disastrous wars and captivity of his father, he had learnt that the debasement of the coinage had greatly impoverished France, and was partly the cause of the political troubles that had so cruelly torn the country. The wise king having greatly at heart to repair the evils, and restore the country to its ancient grandeur, paid the greatest attention to the state of the coinage. Nicolas Oresme, bishop of Lisieux, who had been his tutor, wrote a treatise against the constant changes in the rating and the debasement of the coinage.

328. Charles VI. (1380) in 1385, coined gold *couronnes*, sixty to the marc, and rated at 22 sols 6 den. tournois each. This money continued to be coined till the time of Louis XIII., and other coins which were not continued beyond his reign. He also coined silver gros at twenty deniers, and others at fifteen deniers. But the good custom of his father was abandoned, and the weight and fineness of the silver coinage was often changed, but never the rating. At the beginning of his reign the gold marc was rated at 63 livres 17 sols 6 deniers, and the silver marc at 5 livres 16 sols. This continued till the chronic pest of France, the wars with the English, caused them to try again the ineffectual remedy of debasing the coin. In 1420, the gold marc was rated at 171 livres 13 sols 4 den., and the silver marc at 28 livres. This was done, said one ordonnance of the king in 1418, to resist the English enemy, and his damnable invasion, and because he had no other revenue from his domain. Good money was restored in 1421.

329. Charles VII. began his disastrous reign in 1422. He did not coin any new sort of money. But as usual during troubled times, the weight, fineness, and denomination were repeatedly changed, as is sufficiently shown in the table subjoined to this article. The dauphin was declared regent in 1418, in consequence of the incapacity of the king, and he set up his court at Bourges. He resorted to the usual plan of depreciating the coinage to so great an extent, that the marc of silver, which in 1418, was rated at nine livres, was rated at ninety in 1422, and the *gros tournois*, which was at first rated at twenty deniers, and was 5 den. 8 grs. fine, at the rate of eighty to the marc, was reduced to eight grains only fine, and cut at 120 to the marc. Thus the silver marc, which was received at the Mint at ninety livres, were debased there down to 361 livres 10 sols, so that the king retained as seignorage

270 livres 10 sols on each marc." The gold marc was equally debased, it was received at the Mint at 320 livres, and debased to 2,847 livres, the *escu* passing for forty livres. This debasement produced so much confusion and distress, that he was obliged to return to good money in October, 1422. The silver marc was reduced from 90, to 7 livres 10 sols. The gold marc was reduced to 90 livres, and the gold *escu* was reduced from 40 livres to 20 sols. Thus the money was reduced to 1-40th part of its nominal value. This restoration, however, was not preserved, but the debasement was not nearly so bad as at first. The marc of silver rose to 15 or 20 livres, but in 1454, the country was finally delivered from the English, and it was then reduced to 8 livres 15 sols, and the gold marc rated at 100 livres.

330. In 1436, Paris was recovered by her legitimate king, and the famous Jacques Cœur was made master of the Mint. He coined *couronnes* of fine gold, seventy to the marc, and rated at twenty-five sols. The rating of these coins, however, was changed, and what was stranger, was, that they were rated differently in Normandy from the other provinces. For the *escu*, which passed for 27 sols 6 dens. in the rest of France, was rated at 30 sols in Normandy.

331. Louis XI. (1461) coined only *escus*, and half *escus* of gold, 23 1-3rd carats fine. They were of two sorts, the *couronnes* at seventy-one to the marc, and the *soleils* at seventy to the marc. The latter were first coined in 1475, and superseded the *couronnes*. In silver he coined *gros*, 11 den. 12 grs. fine, which weighed a dram, and passed for 2 sols 6 dens. The silver marc was rated at 8 livres 15 sols, and a seignorage of five sols was taken. The marc of gold was rated at 100 livres, and on this a seignorage of 25 sols 5 dens. was taken. A great number of foreign coins were, however, allowed to pass current.

332. In 1473, it was found that the good French coinage was being exported to foreign countries, and after much discussion the rating of the gold and silver marcs was altered to check it. The marc of gold was rated at 110 livres, and that of silver at 10 livres. This, however, not proving successful, in November 1475, the gold marc was raised to 118 livres, and the silver marc left at ten. The gold *escus* were raised from 30 sols 3 dens. to 33 sols. All foreign money was decried, except that of England, and the dukes of Burgundy and Bretagne, which were cried down in 1479, but the king of England having remonstrated against this, his money was again allowed to be current in January 1480.

333. Louis XI. was very jealous of the invasion of his prerogative of coining money. He declared war against the Duc de Bretagne for coining gold money. This war was called that of the *public good*, and was ended by the treaty of the Bois de Vincennes, 1st October, 1465. One of the conditions of the treaty was that the duke might coin gold at his Mint, which might be current throughout the whole kingdom. The king, pressed by his enemies, was obliged to recognise in the treaty, the ancient right of the dukes of Brittany to coin gold, but this was notoriously contrary to historical evidence, for in 1391, Charles VI. had sent the duke of Berry with several of his principal councillors, to complain to the duke of Brittany that he coined gold

and silver, having only the right to coin billon or mixed money. Louis, however, accorded the privilege of coining gold and silver to his brother Charles, whom he persuaded to take Guyenne, and other large districts of country, in exchange for Champagne. He also gave the same privilege to the Prince of Orange.

334. Charles VIII. (1483) coined the same sort of gold money as his father, and in 1488, on the death of the duke of Brittany, pretending that the province belonged to the crown, invaded it, and captured many of the principal towns. The duke had left one daughter, Anna, and to end all disputes about the coinage, and the sovereignty of the province, the king adopted the sensible course of marrying the young duchess in 1491.

335. In 1487, the rating of the good coin was altered in the futile hope of preventing its being exported. The gold *escu* was raised to thirty-five sols, and the other current gold coins in proportion. In 1488, the silver marc was raised from ten to eleven livres, and the silver coins in proportion.

336. Louis XII. (1497) coined gold *escus au soleil* of the same weight and fineness as his father. He is remarkable as being the first to put the date on these coins. This was done perhaps, to mark the year of his marriage with the duchess of Brittany, 1498, as it was not adopted as a custom till Henry II. Up to 1513, he coined *gros* in silver, but in that year he discontinued them, and coined *testons* instead, so called from having his head on them. They were of silver, XI. deniers, 6½ grains fine, and cut at 25½ to the marc, and passed for 10 sols, tournois. The silver marc was rated at 12 livres 10 sols. The *testons* weighed 7 deniers 12½ grains, and were the heaviest money yet coined in France. These coins continued to be struck till Henry III. Louis XII made no change in the rating of the marc, or the money of gold, and only one in that of the marc of silver.

337. Francis I. (1515) at first coined money similar to that of his predecessor, namely *escus* at 70 to the marc. In 1519 their fineness was diminished a quarter of a carat, and their weight three-quarters of a grain. In 1538 their fineness was further diminished 3 carats. In 1541 some *escus* were coined, which were remarkable as being the first on which the date was given; though this was not adopted as a regular practice till the following reign. In order to trace any bad money to its proper source, each mint, in 1539, was ordered to bear a distinguishing letter on its coinage. By this ordonnance it appears that there were then 25 mints in France.

Francis coined only *testons* and *demi-testons* in silver. They were depreciated as well as the gold coinage during this reign. In 1516 their fineness was XI. deniers 18 grains, and they were coined at 25½ to the marc. In 1521 the fineness was reduced to XI. deniers 6 grains. The marc of silver was rated at 14 livres at the end of this reign, and the marc of gold was raised 35 livres 4 sols. 2 dens. It being found that inferior foreign money was imported, and the French exported, the gold *escu*, which passed for 36 sols 3 deniers in 1519, was raised to 40 sols, and in 1532 to 45 sols. The rating of the silver coinage was raised in like proportion. This, however, was found ineffectual; and, says Le Blanc, such plans

always will be useless, unless the currency of foreign money is forbidden, and gold and silver rated proportionably to their value in neighbouring countries. He says that the English always understood these matters better than other nations.

338. Henry II. succeeded his father Francis I. in 1549. He coined gold *escus*, 23 carats fine, and 7 1-16th to the marc. There were also half, quarter, and double *escus*; the latter were called *Heuris*. And in 1549 two novelties were introduced, to the great relief of numismatists, namely the year of the coinage, and the distinguishing number of the king.

A new coinage of *Henris*, however, was ordered. They were 23 carats fine, and 67 to the marc. The workmanship of the coin was greatly improved by means of a new press. In 1549, the price of the marc of gold was raised 6 livres 12 sols 5 dens., and now stood at 172 livres. The gold *escu* was rated at 46 sols. The price of the silver marc was raised to 15 livres, and the *teston* to XI. sols 4 dens. These ratings of bullion and the coinage remained the same till the 17th August, 1561, as the dies of Henry II. were used till that date, notwithstanding the reign of his son Francis II. for 17 months.

339. Charles IX. succeeded his brother Francis II. in December, 1560. In 1561, a new coinage of gold *escus* was struck. Their weight was diminished 1 grain, and their rating raised 4 sols. They were then made current at 50 sols, but as they passed for more than that with the public, they were raised to 54 sols in 1573. The marc of gold was then rated at 200 livres, that of silver at 17 livres, and the *teston* raised to 13 sols.

340. Henry III. succeeded his brother in 1574. He struck no new coins till July, 1575. The first he struck were gold *escus* 23 carats fine, and 72½ to the marc. Double and quadruple *escus* were also struck. In silver he struck *testons* and *demi-testons*, as well as two new species, *francs*, with their halves and quarters, and quarter and half-quarter *escus*. The *francs* were of silver 10 deniers fine, 17½ to the marc, and weighed 11 dens. 1 gr. They passed for 20 sols. They then became the money of account, and have continued so ever since.

The quarter *escus* of silver were struck in October, 1580. They were deniers, fine, 25 1-5 to the marc, and weighed 7 deniers 12 grains, and passed for 15 sols. In 1575 the gold *escu* was rated at 60 sols.

341. The civil disorders under Henry III. were attended with their usual consequence, a great disorder in the coinage. The gold *escus* had been raised to 60 sols, but they passed currently at 68 sols. To remedy this inconvenience many consultations were held with those who were supposed to be most skilful in such affairs. The *Cour des Monnaies* recommended that a general meeting should be summoned of the most experienced persons in the principal towns in the kingdom, to consider what measures should be adopted to remedy these disorders. They also recommended that the subject should be brought before the States General, which were to meet at Blois in December. They presented a memorial to the king, fully and minutely detailing the great public inconvenience of this monetary disorder. The States after considering this remon-

strance, resolved to reduce the gold *escu* to 60 sols. But they were unable to effect this, and they were obliged to fix it temporarily at 65 sols.

The *Cour des Monnaies* pointed out that this would be ineffectual, and further recommended that the mode of computing by sols and livres should be abolished. They pointed out the unfairness to one or other of the contracting parties, when the rating of the coins was changed so frequently, and advised that the mode of reckoning should be changed from livres and sols to *escus*. This proposal was deemed so important that a meeting of all the persons most learned in monetary matters was held at Paris, at the house of the Cardinal de Bourbon. The plan was warmly debated, but the advice of the *Cour des Monnaies* was finally adopted, and an ordonnance issued to that effect, containing all the necessary regulations for adopting this change on the 1st of January, 1578, and for converting all current engagements contracted in livres and sols to their equivalent in *escus*, at the rate of 60 sols to the *escu*.

342. Henry III., died in August, 1589, and the Cardinal de Bourbon was proclaimed king by the faction of the League, by the name of Charles X. He struck money similar to Henry III.

343. Henry IV., the legitimate successor, struck money immediately after the death of Henry III., of the same weight, fineness, and denomination. During the civil war the *escu* had risen in current usage to 64 sols, and even higher. In 1594, when Henry IV. obtained possession of Paris, it was reduced to 60 sols, as fixed by the edict of 1577. The franc was also brought back to 20 sols. In 1602, the mode of accounting by *escus* was abolished, and that by livres restored. At the same time the gold *escu* was raised to 65 sols, and the franc to 21 sols. The marc of gold was rated at 240 livres 10 sols, and that of silver at 20 livres 15 sols. Foreign money was also allowed to be current. The restoration of the mode of counting by livres was not found to have the effects expected. The gold *escu* continued to rise, and in 1609, usually passed current at 72 sols, to the great surprise of those who advised the edict of 1602. Many consultations and discussions were held before the king on this unexpected state of things. But the opinions were so divided that nothing could be done. The only thing they all agreed in was that foreign money should not be allowed to pass. The death of the king on the 14th May, 1610, put an end to the conferences, which were renewed under the Regency, but led to no result.

344. Louis XIII. succeeded his father the 14th May, 1610, but made no change in the coinage till March, 1640, when orders were given to strike a new coin, to be called *Louis d'or*. It was of gold, 22 carats fine, and coined at 36½ to the marc. It thus weighed 5 deniers 6 grns., and was rated at 10 livres. Half and double louisies were also struck.

In 1641, the king ordered a new silver coin to be struck, to be called the *Louis d'argent* of the value of 60 sols. The silver was XI deniers fine, and 8 11-12ths to the marc, and weighed 21 deniers 8 grains. Louisies of 30, 15, and 5 sols were also struck. The louisies of 60 sols were also called *escus blancs*. They were the heaviest and most beautiful silver coins which

had yet been struck. The dies were made by the celebrated Varin. The evil of the rise of the money increased even faster in this reign than before. In the course of 26 years the price of the gold escu had risen 39 sols.

345. The edict of Henry IV. in 1602, permitting the currency of foreign money had caused vast quantities to be imported, and in consequence of the difference of rating, the French money was exported. To remedy this, many conferences were held with the most experienced persons in the chief commercial towns, and they advised that all the different pieces should be reduced to their current market value. The gold escu was raised to 75 sols, and the value of the foreign gold money settled in proportion. The rating of the marc of gold was raised to 278 livres 6 sols. 6 dens, that of silver was 20 livres 5 sols. 4 dens. Thus the proportion of gold to silver was 1 to 13-7-10ths. This ordonnance took effect in 1615. In 1631, further changes were found necessary. In February the gold escu was raised to 80 sols, and in August to 83. In July, 1633, it was raised to 86, in March, 1637, to 94 sols, and in June to 104. The marc of gold was then rated at 384 livres, and that of silver at 25. The silver franc, which Henry III. at struck had 20 sols, was raised to 27. In 1640 the coinage was greatly depreciated by clipping, and it was found necessary to decry all light gold pieces. The clippers then set to work on the silver money; and in 1641 it was found necessary to order that all silver money, both French and foreign, should only be received by weight. In November the light silver money was decryd altogether, and ordered to be coined into silver Louises. It said in the ordonnance, that since the recoinage of the gold 40 millions of livres had been struck. Silver Louises were ordered to be coined XI. dens. fine, and of the value of 60, 30, 15, and 5 sols. The silver marc was rated at 26 livres, 10 sols, and the quarter ecu, which in 1577 was rated at 15 sols, was ordered to pass for 21. These were the most beautiful coins which had been struck since the Greeks and Romans; and this seems to have been the first occasion on which the milled edge was introduced, which prevented their being clipped without detection. The restoration of the coinage was deemed of so great importance, that medals were struck with the inscription LUDOVICO XIII. RESTITUTORI MONETÆ. Le Blanc says that this restoration of the coinage by Varin was attended with this further advantage, that it saved the lives of multitudes of the king's subjects, because they were so beautiful that they could not be forged.

346. Louis XIV. succeeded his father in 1643, and at the beginning of his reign the coinage of his father was continued. In 1646 the coinage of quarter and half-quarter escus was discontinued; and in 1656 that of gold escus, after which *lis d'or* were struck. In the same year, a new coin called *lis d'argent* was struck. The *lis d'or* was 23½ carats fine, and 60½ to the marc, weighing 3 dens. 3½ grs., and rated at 7 livres. The *lis d'argent* was XI. dens. 12 grs., fine, and 30½ to the marc weighed 6 dens. 5 grs., and passed for 20 sols. Half and quarter *lis* were also struck. These pieces, however, were soon discontinued, and the Louises of gold and silver restored.

In 1685, new silver money was coined in honor

of the termination of the war in Flanders. Pieces worth 4, 2, and 1 livres, 10 and 5 sols, were struck, 10 dens. 7 grs. fine. The 4 franc pieces weighed 1 ounce 5 dens. 6 grs.

347. When Louis XIII., in 1641, wished to coin all the foreign money which circulated in France into French money, he summoned all the most expert persons in Paris to consider what proportion should be observed between gold and silver. It was found that at Milan the ratio was 1 to 12; in Flanders and the Low Countries, 1 to 12½; in England 1 to 13 1-5th; in Spain, 1 to 13 1-3rd. It was considered that France being in the midst of these countries should adopt a medium ratio, and consequently the one adopted was 1 to 13½. This proportion was observed for many years, and at the Paris Mint alone, about 300 millions of money was struck in that proportion. In 1655, the proportion was changed to 1 to 14 15-16ths, and *lis d'or* were struck to pass for 7 livres. The rating of the *louis d'or* was increased from 10 to 11 livres. Many changes in the ratio of gold to silver were made after this, to the great derangement of trade. The *Cour des Monnaies*, and the principal merchants addressed strong remonstrances to the government on the subject, but without effect. In 1679, a considerable amount of foreign and light money was in circulation. This was all decryd and ordered to be coined into gold and silver louis. The king ordered that good new money should be given for all the old brought to the Mint, weight for weight, without any deduction. Those who brought bullion received an equal weight of coin in exchange. The marc of silver was now rated at 29 livres 6 sols 11 deniers. This regulation is warmly commended by Le Blanc.

348. In 1689, a new recoinage was ordered, and the *louis d'or* was ordered to pass for 12 livres 10 sols, and the *ecus* for 3 livres 6 sols. It would be tedious to give all the variations in the rating of the *louis*. Between 1689 and 1709, its rating was changed 35 times, the lowest being 11 livres 10 sols, and the highest 15 livres, and the *ecus* a similar number. From 1640 to this year, the *louis* were struck at 36½ to the marc. The *ecus* were 9 to the marc. In May 1709, an edict ordered *louis* of 30 to the marc to be struck at 20 livres. But the same tamperings took place with its rating as before, so that it seldom remained the same for many weeks at a time. To give these at full length would be obviously impossible in this work. They, however, will all be found in *De Bazinghen's Traité des Monnoies*. However, in 1726, these miserable practices came to an end, and nothing farther took place till the Revolution, when the decimalization of the coinage was ordered by the Convention.

349. Beccaria and James Watt had shown the great advantages which would attend the introduction of a decimal system into weights, measures, and coins. But no nation had reduced these ideas into practice until the subject was taken up in 1790, in the Constituent Assembly of France.

The history of the introduction of the decimal system into the French measures, is given by Mr. John Quincy Adams, in his official report on Weights and Measures, prepared in obedience to an order of the Senate of the United States, in 1817. We shall quote his account. He says, p. 69:

"In the year 1790, the present Prince de

Talleyrand, then Bishop of Autun, distributed among the members of the Constituent Assembly of France a proposal, founded upon the confusion of the weights and measures then prevailing all over that country, for the reformation of the system, or rather for the foundation of a new one, upon the principle of a single and universal standard. After referring to the two objects which had previously been suggested by Huyghens and Piccard, the pendulum and the proportional part of the circumference of the earth, he concluded by giving the preference to the former and presented the project of a decree. First, that exact copies of all the different weights and elementary measures used in every town of France should be obtained and sent to Paris. Secondly, that the National Assembly should write a letter to the British Parliament, requesting their concurrence with France in the adoption of a natural standard for weights and measures, for which purpose commissioners, in equal numbers from the French Academy of Sciences and of the British Royal Society, chosen by those learned bodies respectively, should meet at the most suitable place, and ascertain the length of the pendulum at the 45th degree of latitude, and from it an invariable standard for all measures and weights. Thirdly, that after the accomplishment, with all due solemnity, of this operation, the French Academy of Sciences should fix with precision the tables of proportion between the new standard and the weights and measures previously used in the various parts of France, and that every town should be supplied with exact copies of the new standard, with tables of comparison between them and those of which they were to supply the place. This decree, somewhat modified, was adopted by the assembly, and, on the 22nd of August, 1790, sanctioned by Louis XVI. Instead of writing to the British Parliament themselves, the Assembly requested the King to write to the King of Great Britain, inviting him to propose to the Parliament the formation of a joint commission of members of the Royal Society and of the Academy of Sciences, to ascertain the natural standard in the length of the pendulum. Whether the forms of the British constitution, the temper of political animosity then subsisting between the two countries, or the convulsions and wars which soon afterwards ensued, prevented the acceptance and execution of this proposal, it is deeply to be lamented that it was not carried into effect. Had the example once been set of a concerted pursuit of the great common object of *uniformity* of weights and measures by two of the mightiest and most enlightened nations upon earth, the prospects of ultimate success would have been greatly multiplied. By no other means can the uniformity, with reference to the persons using the same system, be expected to prevail beyond the limits of each separate nation. Perhaps when the spirit which urges to the improvement of the social condition of man shall have made further progress against the passions with which it is bound, and by which it is trammelled, then may be the time for reviving and extending that generous and truly benevolent proposal of the Constituent National Assembly of France, and to call for a concert of civilized nations to establish one uniform system of weights and measures for them all.

"The idea of associating the interests and the learning of other nations in this great effort for common improvement, was not confined to the proposal for obtaining the concurrent agency of Great Britain. Spain, Italy, the Netherlands, Denmark, and Switzerland were actually represented in the proceedings of the Academy of Sciences, to accomplish the purposes of the National Assembly. But, in the first instance, a Committee of the Academy of Sciences, consisting of five of the ablest members of the Academy, and most eminent mathematicians of Europe, — Borda, Lagrange, Laplace, Monge, and Condorcet, were chosen under the decree of the Assembly, to report to that body upon the selection of the natural standard, and other principles proper for the accomplishment of the object. Their Report to the Academy was made on the 19th of March, 1791, and immediately transmitted to the National Assembly, by whose orders it was printed. The Committee, after examining three projects of a natural standard, the pendulum beating seconds, a quarter of the equator, and a quarter of the meridian, had a full deliberation, and with great accuracy of judgement, preferred the last; and proposed that its ten-millionth part should be taken as the standard unit of linear measure; that as a second standard of comparison with it, the pendulum vibrating seconds at the 45th degree of latitude should be assumed; and that the weight of distilled water at the point of freezing, measured by a cubical vessel in decimal proportion to the linear standard, should determine the standard of weights and vessels of capacity. * * * * *

"The application of the new metrology to the moneys and coins of France, has been made with considerable success; not, however, with so much of the principle of uniformity as might have been expected, had it originally formed a part of the same project. But the reformation of the coins was separately pursued, as it has been with us; and as the subject is of great complication, it naturally followed that from the separate construction of two intricate systems, the adaptation of each to the other was less correct than it would have been had all the combinations of both been included in the formation of one great masterpiece of machinery. It is to be regretted that in the formation of a system of weights and measures, while such extreme importance was attached to the discovery and assumption of a natural standard of long measure as the link of connection between them all, so little consideration was given to that primitive link of connection between them which had existed in the identity of weights and of silver coins, and of which France, as well as every other nation in Europe, could still perceive the ruins in her monetary system then existing. Her *livre tournois*, like the pound sterling, was a degeneracy, and a much greater one, from a pound weight of silver. But it had scarcely a 70th part of its original value. It was divided into 20 sols, or shillings, and the sol was of 12 deniers or pence. It had become a mere money of account; but the *ecu*, or crown, was a silver coin of 6 livres, nearly equivalent to an ounce in weight; and there were half-crowns and other subdivisions of it; being coins of one-fourth, one-fifth, one-eighth, and one-tenth of the crown. There were also coins of gold, of copper, and of

mixed metal, called billon, in the ordinary circulations of exchange. Shortly after the adoption of the provisional or temporary metre and kilogramme, a law of 16 Vendémiaire II. (17th October, 1793), prescribed that the principal unit, both of gold and silver coins, should be of the weight of 10 grammes. The proportional value of gold to silver was retained, as it had long before been established in France, at $15\frac{1}{2}$ for one; the alloy of both coins was fixed at one-tenth; and the silver franc of that coinage would have been worth about 38 cents, and the gold franc a little short of 6 dollars. This law was never carried into execution. It was superseded by one of 15th August, 1794, (28 Thermidor III.) which reduced the silver franc to 5 grammes; and it was not until after a law of 7 Germinal XI. (28th March, 1803), that gold pieces of 20 and 40 francs were coined at 155 of the former to the kilogramme.

"In the new system, the name of *livre*, or pound, as applied to money or coins, was discarded, but the franc was made the unit both of coins and moneys of account. The franc was a name which had before been in common use as a synonymous denomination of the *livre*. The new franc was of intrinsic value 1-80th more than the *livre*. The franc is decimally divided into decimes of 1-10th, centimes of 1-100th, and millièmes of 1-1000th of the unit; but the smallest copper coin in common use is of five centimes, equivalent to about one of our cents. The silver coins are of one-fourth, one-half, one and two francs, and of five francs; the gold pieces of 20 and 40 francs. The proportional value of copper to silver is 1 to 40, and that of billon to silver of 1 to 4; so that the kilogramme should weigh 5 francs of copper coin, 50 of the billon, 200 of the silver, and 3,100 of the gold coins."

350. It has been found by the most elaborate experiments that the proportion of one part alloy and 11 parts gold or silver, confers the greatest amount of durability upon the metal. The French, however, prefer to sacrifice this advantage to the spirit of uniformity, and the alloy in both gold and silver coinage is fixed at 1 in 10.

351. We have seen that the ancient right of seignorage was on several occasions abandoned by the kings of France. It was, however, subsequently revived, and it is stated in M. Maurice Block's excellent *Dictionnaire de l'Administration Française*, that from 1726 to 1729, it was fixed at 7 5-16ths per cent. for gold, and 5 6-7ths per cent. for silver; but by successive reductions, in 1755 and 1771, it fell to 1 4-5ths for gold, and 1 7-24ths for silver. By the law, however, above quoted, 7 Germinal, XI, Art. 11, it was altogether abolished.

352. The right of *brassage*, or the cost of workmanship is, however, retained. Before 1789, it was 28-10ths per 1000 for gold, and 14 16-10ths per 1000 for silver. By the last-mentioned law it was fixed at 9 francs for the kilogramme of gold, (or 2 28-31ths per 1000) and at 3 francs for the kilogramme of silver, (or 15 per 1000). An ordonnance of Feb. 25th, 1835, reduced these

respectively to 6 francs, and 2 francs. On the 22nd May, 1849, the latter was still further reduced to $1\frac{1}{2}$ francs. There are seven Mints in France, Paris, Marseilles, Bordeaux, Lille, Strasbourg, Lyons, and Rouen. Gold and silver money is, however, almost exclusively struck at Paris, the provincial ones are chiefly employed in re-coining the copper which was ordered in 1852.

353. The inconvenience of a double standard of both metals, at their full nominal value, has been strikingly displayed in the French coinage. The pieces were struck on the decimal system, and had a fixed value. For many years silver was the only money seen in France in common use. Gold was only to be had by paying a premium, and large sums were carried about in unwieldy bags of 5 franc pieces. When the enormous supplies of gold poured in, the gold coinage became depreciated below its mint relation to silver, then the reverse phenomenon took place. The silver all disappeared. Every steamer and diligence from France carried away loads of these same 5 franc pieces, until they had entirely disappeared. Nothing but gold was to be seen, and in 1854 a coinage of 5 franc gold pieces was issued, which were very inconvenient from their small size. These disturbances of the metallic currency clearly shewed the advantage of the English system of making gold the sole legal standard, and coining shillings slightly below their proper weight, to serve as small change. A similar disturbance could not be manifested in English coinage until the diminution in the value of the gold compared to silver, exceeded the difference between the real and the nominal value of the silver coinage.

354. We shall now give the variations of the Mint prices of gold and silver for France, as we have done for England and Scotland. If we are inclined to exclaim against those in our own country, what shall we say to the extraordinary picture presented by those of France? Astonishing as these may seem, they present but a very faint idea of the real confusion in the French coinage. It was bad enough to change the weights of the pieces so often, but that is absolutely a trifle compared to the changes in the *ratings* of the several pieces. To give these would occupy several pages of this work, which renders it quite impossible to insert them. A notion of them however, may be had in § 542 of *BANKING IN FRANCE*, where the changes are given for a short period, and from what we have said above, that the rating of the *louis d'or* was changed no less than 35 times in 37 years. This practice was to a small extent done in Scotland, but never in England, and it is impossible to conceive the confusion into which it must have thrown all the affairs of common life.

Traité historique des Monnoyes de France. By Le Blanc. Paris, 1692.

Essai sur les Monnaies. By St. Maur. Paris, 1746.

Traité des Monnaies. By Abbot de Bazinghen. Paris, 1764.

TABLE showing the Variations in the Mint prices of the Marc of Gold and Silver in France, Revolution.

GOLD.				SIL.				SILVER.				GOLD.				SILVER.					
A.D.		£	s. d.	A.D.		£	s. d.	A.D.		£	s. d.	A.D.		£	s. d.	A.D.		£	s. d.		
1113	..	20	0 0	1803	18 Jan.	60	17 6	1423	22 May	84	0 0	31 Dec.	7	0 0			
1144	26 Oct.	62	16 4	1424	1 July	79	0 0			
1158	2 Sep.	87	10 0			
1207	1425	9 June	6	5 0			
1226	1426	27 Aug.	108	0 0	17 Aug.	7	0 0			
1263	1354	24 Nov.	60	0 0	..	11 Sep.	108	0 0	23 Jan.	7	10 0			
1285	16 Mar.	7	5 0			
1293	28 May	8	10 0			
1295	20 Aug.	9	10 0			
1296	20 May	3	6 0	1427	9 Jan.	90	0 0	19 Nov.	11	0 0			
1297	4 July	3	10 0	27 May	72	0 0	11 Jan.	7	0 0			
1298	25 May	3	15 0	28 Aug.	90	0 0	28 Aug.	8	0 0			
1299	7 June	3	18 0	1355	3 Jun.	61	5 0	20 Nov.	80	0 0	4 Oct.	8	10 0			
1302	..	..	..	..	4	5 0	..	19 June	62	10 0	1428	31 Feb.	92	10 0	..	..	..	
..	..	..	..	..	4	8 0	..	..	..	..	..	31 July	97	10 0	31 July	11	0 0
1303	..	..	..	2 Feb.	5	4 0	..	..	..	..	1429	2 Mar.	105	0 0	..	..	..	
1304	..	..	..	15 Aug.	6	0 0	..	..	..	..	..	14 Nov.	77	10 0	24 Jan.	13	10 0
..	..	..	..	7 May	6	5 0	..	..	..	..	..	..	..	..	2 Mar.	15	0 0
..	..	..	..	25 Jun.	6	14 0	..	..	..	..	..	..	..	..	10 Jun.	20	0 0
..	..	..	..	8 Sep.	6	15 0	..	..	..	..	..	..	..	..	5 Nov.	7	0 0
1306	July	44	0 0	13 Dec.	7	5 0	..	..	..	..	1430	7 July	97	0 0	23 Dec.	6	15 0
..	..	..	..	1 Mar.	7	10 0	1356	..	..	..	1431	20 May	77	10 0	..	..	..	
1306	..	..	..	18 Sep.	8	10 0	..	..	..	..	1432	24 Mar.	88	11 10	9 Jan.	7	5 0
1308	..	..	..	1 Oct.	2	16 6	..	..	..	..	..	..	..	..	11 Apl.	9	5 1
1310	12 Aug.	49	10 0	18 Ap.	3	19 0	..	..	..	..	..	..	..	..	22 Aug.	9	10 2
1311	22 Jan.	55	11 9	20 Jan.	3	7 6	1357	25 Jan.	63	2 6	1433	..	..	..	29 Sep.	9	16 0	
1312	24 Aug.	55	10 4	8 July	3	5 1	1358	31 Aug.	78	16 0	1435	14 Oct.	103	10 0	16 Jan.	7	5 0				
1313	..	..	..	19 Sep.	2	14 7	..	..	..	..	1436	21 Feb.	88	5 0	23 Sep.	9	0 0
1314	29 Nov.	55	10 0	29 Nov.	2	4 7	..	..	..	..	..	..	..	..	21 Feb.	7	0 0
1315	15 Jan.	45	0 0	..	..	..	..	..	..	..	1437	1 Sep.	87	10 0	21 Apl.	7	8 0
..	Easter	39	0 0	..	..	..	..	..	..	..	..	..	..	..	27 Nov.	9	0 0
..	8 Dec.	55	10 0	..	..	..	..	..	..	..	1438	22 Nov.	92	10 0	..	..	..	
1316	..	..	..	15 Jan.	2	4 0	..	..	..	..	1439	30 Apl.	86	5 0	8 Apl.	7	10 0
1318	..	..	..	1 Mar.	3	7 6	..	..	..	..	1440	..	..	..	..	7 8 0	
1322	20 Feb.	58	0 0	15 Oct.	3	8 9	..	..	..	..	1441	..	..	..	..	7 10 0	
..	15 Oct.	58	6 9	..	..	..	..	..	..	..	1442	19 Nov.	87	3 6	..	..	..	
1323	..	..	..	2 Mar.	4	0 0	1359	30 Apl.	80	12 6	1443	17 Dec.	87	10 0	..	..	..	
1326	16 Feb.	67	10 0	24 July	4	10 0	..	..	..	..	1444	24 Sep.	88	7 8	..	..	..	
1327	..	..	..	20 Jan.	5	0 0	..	..	..	..	1445	1 June	88	2 6	..	..	..	
1328	..	..	..	8 Jan.	5	8 0	..	..	..	..	1446	21 Jan.	97	15 0	7 July	8	0 0
..	..	..	..	7 Nov.	5	11 0	..	..	..	..	1447	27 July	97	5 7	27 July	8	10 0
1329	..	..	..	26 Dec.	4	4 0	..	..	..	..	..	27 Oct.	97	15 0	..	7	10 0
1330	8 Apl.	41	13 0	8 Apl.	2	16 0	..	..	..	..	1450	16 June	99	0 0	..	..	..	
1331	9 Jan.	39	0 0	8 Jan.	3	17 8	..	..	..	..	1451	8 Feb.	99	5 0	..	..	..	
1343	..	..	..	12 June	3	15 6	..	..	..	..	1454	18 May	99	10 0	..	..	..	
1397	1 Feb.	50	0 0	13 Feb.	3	12 6	..	..	..	..	1456	26 June	100	0 0	26 June	8	10 0
1398	14 Nov.	58	0 0	14 Nov.	4	12 0	..	..	..	..	1456	..	..	..	..	8 15 0	
1399	25 May	61	10 0	3 Jan.	5	0 0	1360	..	..	..	1456	..	..	..	..	8 10 0	
..	14 June	66	0 0	..	..	..	..	..	..	..	1473	18 June	103	0 0	..	..	..	
..	10 Aug.	69	0 0	..	..	..	..	..	..	..	1474	8 Jan.	110	0 0	8 Jan.	10	0 0
1340	20 Jan.	71	0 0	5 Feb.	6	15 0	..	..	..	..	1475	2 Nov.	118	10 0	..	..	..	
..	7 Feb.	82	0 0	1 Aug.	7	0 0	..	..	..	..	1488	24 Apl.	130	3 4	24 Apl.	11	0 0
..	15 Feb.	86	0 0	4 Dec.	7	10 0	..	..	..	..	1513	..	..	..	6 Apl.	12	10 0
..	16 Apl.	96	0 0	..	..	..	..	..	..	..	1515	..	..	..	1 Jan.	11	0 0
..	27 May	100	0 0	..	..	..	..	..	..	..	1519	10 June	147	0 0	17 Feb.	12	15 0
..	7 Oct.	108	0 0	..	..	..	..	..	..	..	1521	..	..	..	10 June	12	10 0
1341	31 Jan.	114	14 0	27 Jan.	8	14 0	..	..	..	..	1540	10 May	185	7 8	20 Sep.	13	5 0
..	7 Feb.	115	0 0	8 Feb.	9	4 0	..	..	..	..	..	..	..	..	24 Feb.	12	10 0
..	23 Aug.	130	0 0	13 Feb.	9	12 0	..	..	..	..	1549	..	..	..	18 May	14	0 0
1342	19 Jan.	136	0 0	..	..	..	..	..	..	..	1550	23 Jan.	172	0 0	25 Oct.	14	10 0
..	28 Jun.	168	0 0	30 June	12	10 0	..	..	..	..	..	..	..	..	23 Jan.	15	0 0
..	18 Sep.	171	0 0	7 Sep.	13	0 0	..	..	..	..	1561	30 Aug.	185	0 0	20 Apl.	14	5 0
1343	10 Apl.	117	0 0	9 Apl.	13	10 0	1361	12 Jan.	60	0 0	1573	9 June	200	0 0	30 Aug.	15	15 0				
..	22 Sep.	48	6 8	22 Sep.	9	12 0	..	..	..	..	1575	31 May	222	0 0	9 June	17	0 0
1344	27 Mar.	44	3 9	26 Oct.	3	4 0	1363	29 July	61	0 0	..	..	..	..	31 May	17	15 0
1345	1364	2 May	62	0 0	1365	17 Oct.	19	0 0			
..	16 Feb.	3	8 0	1370	5 May	63	12 0	1370	20 5 4			
1346	17 July	60	0 0	9 Apl.	3	10 6	1372	1372	19 June	65	15 0			
1347	24 Feb.	72	0 0	17 July	4	10 0	1381	25 Apl.	60	10 0	1385	9 Aug.	5	16 0	8 May	23	10 0				
..	6 Apl.	76	0 0	27 Jan.	5	0 0	..	..	..	..	1386	18 Apl.	5	9 0	22 Sep.	35	0 0
..	14 Apl.	44	3 4	24 Feb.	5	15 0	1386	18 Mar.	65	10 0	1386	15 Aug.	5	16 0	18 Nov.	36	10 0				
..	27 Sep.	75	0 0	21 July	7	10 0	1386	31 Aug.	66	0 0	1387	..	..	..	10 Apl.	39	5 11	
1348	11 Jan.	51	10 0	1388	28 Feb.	66	10 0	1387			
..	11 Jan.	4	18 0	1389	1387	30 Oct.	5	18 0			
1349	12 Mar.	61	15 3	31 Aug.	5	0 0	1389	1387	4 July	6	8 9			
..	23 May	62	1 6	31 Dec.	6	0 0	1391	8 Apl.	67	0 0	1387	8 Apl.	6	5 0			
..	5 Dec.	63	0 0	12 May	6	13 0	1392	1 Apl.	67	10 0	1387			
1350	1 Sep.	53	15 9	7 Aug.	6	15 0	1394	5 Sep.	68	5 0	1387	27 Nov.	6	8 0	1701	1 Jan.	462	8 0			
..	5 Dec.	7	7 0	1399	1387	6 July	6	13 6	1708	1 Jan.	474	10 0			
..	20 Jan.	7	15 0	1405	8 Aug.	68	15 0	1387	1706	1 Jan.	36	0 0	
..	23 Apl.	8	0 0	1408	11 Feb.	68	5 0	1387	1709	May	40	0 0	
..	28 Aug.	5	5 0	1411	7 Nov.	70	0 0	1387	1715	1 Jun.	638	3 7	
1351	20 June	54	17 6	26 Oct.	5	12 0	1412	5 Mar.	70	15 0	1387	1720	Dec.	638	3 7	Dec.	36	0 0
..	18 Aug.	96	0 0	6 Feb.	6	0 0	1413	1387	Mar.	900	0 0	25 Feb.	40	0 0
..	17 Sep.	96	5 0	8 Mar.	6	8 0	1414	1387	30 July	1800	0 0	5 Mar.	80	0 0
..	24 Sep.	58	3 8	17 May	6	18 0	1417	8 Sep.	73	0 0	1387	11 Mar.	60	0 0	
..	20 Nov.	60	0 0	23 June	7	8 0	..	17 May	92	0 0	1387	30 July	190	0 0	
..	18 Aug.	8	13 0	..	21 Oct.	96	0 0	1387	July	60	0 0	
..	..																				

COINAGE, DECIMAL. A decimal coinage is one consisting of pieces related to each other in the ratio of 10, or of some power of 10.

2. There are three distinct systems of coinage :—

First. Where the lowest coin of all, or even an imaginary unit, is taken below any existing coin, and all other coins are multiples of that unit. That is, where the coinage proceeds exclusively by multiplication.

Secondly. Where some intermediate coin is taken as the unit, and other coins are struck both as multiples and as subdivisions of that unit. That is, where the coinage is a combination of multiplication and division.

Thirdly. Where the highest coin of all is taken as the unit, and all others are aliquot parts of that unit. That is, where the coinage proceeds exclusively by subdivision.

3. Now, in the first system it is natural that all accounts should proceed by decimal multiples of the unit. And therefore there may be decimal accounts. But that does not necessarily imply a decimal coinage. Thus, from time immemorial the only coin in China has been the *cash*, which is the 1000th part of the ounce of silver. This is the only coin in existence, and all sums are expressed as decimal multiples of that unit. This is attended with very great conveniences, and calculations are very quickly performed, and travellers tell us of the expertness with which mere children can perform long calculations. But the Chinese have not a decimal coinage, as there are no multiples of the cash.

4. The French coinage is an example of the second system. In that the franc is the unit, and there are both multiples and divisions of the franc. The Napoleon is equal to 20 francs, and there are divisions of the franc according to a decimal system. This coinage is decimal so far as the franc, but not further, as the Napoleon is not decimally related to the franc.

5. The English coinage is an example of the third system. In that the unit is the pound sterling, now a gold coin. And all other coins are aliquot parts of the pound sterling. The English coinage, therefore, proceeds exclusively by *sub-division*.

6. Now, the decimal system of accounts having been applied with great success to the first system, and a decimal system of accounts and coins having been adopted with more or less success in the second system, a pretty strong feeling has been excited, especially among scientific men, to apply the decimal system to the English coinage. That is, to make the different pieces of the coinage related to each other in a decimal ratio.

7. At first sight such a scheme appears to have a great many advantages. It is much easier to cast up accounts decimally, than by our present plan. And it seems a very plausible thing to say, that as the integers proceed on the denary scale, so should the subdivisions. That is, if it be multiplied decimally, why should it not be divided decimally?

8. This idea, however plausible it may seem, is utterly erroneous. It is founded on the idea that integers expressed in the denary scale and decimal fractions are correlative systems. People see the figures on one side of the decimal point

increase by powers of 10, and on the other decrease by powers of 10, and they jump at the conclusion that they proceed on the same principles. Nevertheless this is an entire fallacy, and it is quite easy to shew it. Thus, if we multiply 1 by 3, we have 3 an exact answer; but if we divide 1 by 3, do we have $\cdot 3$ an exact answer? If we multiply 1 by 2, we have 2; but if we divide 1 by 2, we have not $\cdot 2$, but $\cdot 5$. Which shews at once that decimal fractions are different in principle from multiplication of integers.

9. To shew this more clearly, we may multiply an integer by any number we please—2, 3, 4, 5, 6, &c., and we always obtain an exact result which, for the purposes of convenience, we may reckon by groups of 10. It is, therefore, physically possible to multiply any unit by any number whatever, and obtain an exact result.

10. So we may divide an integer by 2, 3, 4, 5, 6, 7, &c., or any number, and obtain an exact result. Hence, division by the ordinary numbers is the correlative of multiplication by them. As we may multiply the unit any number we please, and get an exact result, so we may divide by any number we please, and it is physically possible to obtain an exact result. Therefore, the common fractions are the correlatives of ordinary multiplication in the denary scale.

11. But in decimal fractions that is not so. In these the only divisors allowed are 10, and powers of 10. Hence, while we may multiply by any number whatever, we must only divide by powers of 10. Thus, instead of our divisors being unlimited, like our multipliers, they are restricted to a very small number indeed. And this consequence follows, that it is physically impossible to divide a unit exactly into any aliquot parts which are not some powers of the factors of 10.

That is, a unit cannot be divided exactly in decimals by any number which is not of the form $2^n \times 5^m$.

12. Now, the immense majority of numbers are not of this form at all, and consequently it is a matter of physical impossibility to divide a unit exactly by the immense majority of numbers.

13. To shew how very few they are, we will shew how extremely few there are in the natural numbers up to 1,000, by which a unit can be exactly divided by decimal fractions.

Taking powers of 2, we have—

1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1,024, &c.

Taking powers of 5, we have—

1, 5, 25, 125, 625, 3,125, 15,625, &c.

Now, a unit cannot be divided exactly in decimals by any number except those in these two series, or those arising from the multiplication of any one in the one series by any one in the other.

To shew how extremely few they are, we have only to see how many there are up to 1,000. We shall find that there are only 28 numbers up to 1,000, in which an exact division is possible. They are, 2, 4, 5, 8, 10, 16, 20, 25, 32, 40, 50, 64, 80, 100, 125, 128, 160, 200, 250, 320, 400, 500, 512, 625, 640, 800, and 1,000.

14. Now, what should we say to a system of multiplication in which it was a physical impossibility to obtain an exact result in the immense majority of cases? What should we say to a system of multiplication in which it was physically impossible to multiply a unit exactly by 3,

6, 7, 9, 11, 12, &c. ? It is clear that such a system could not be tolerated for a day.

15. Now, such a system as that would be the correlative of decimal fractions. It would be one in which we were forbidden to multiply by any numbers except 10, and powers of 10; and therefore no multipliers which were not of the form $2^n \times 5^r$ could bring out an exact answer.

16. Hence we see that the analogy between decimal numbers and decimal fractions entirely fails. In fact, they proceed upon different principles; and it is manifestly the same with any fraction expressed in the radix of the scale of notation.

The unit may be multiplied by any natural number whatever. But it can only be divided by powers of the radix. Consequently, it can be divided exactly by no natural numbers whatever, except those composed of powers of the factors of the radix.

17. Hence we see at once, that there is a fundamental distinction between addition or multiplication in the denary scale, and decimal subdivisions, or decimal fractions. For all cases of addition or multiplication, nothing can be better than decimals, but for all cases of subdivision nothing can be worse.

18. The cases, therefore, of a coinage in which the unit is the lowest possible, and therefore proceeds by multiplication, and that in which the unit is the highest possible, are not only not parallel, but they involve principles which are antagonistic to each other. Where nothing but physical multiplication is wanted, nothing can be better; but where physical division is required, decimal fractions are impracticable.

19. Hence, we see at once, that the analogy between coinages of the third system and those of the first entirely fails, and what is the best in the first is impracticable in the third.

20. We have said that the essential peculiarity of decimal fractions is, that the unit cannot be divided into any aliquot parts, except those proceeding by powers of 10. Now this is a restriction that no people would ever submit to in the common affairs of life. We constantly require to divide things exactly into 3, 6, 7, 9, 11, 12 parts. No one would ever dream of proposing that persons should voluntarily preclude themselves from dividing a quantity into any exact parts under 1,000, but those of the 28 numbers above given. But that is what we should do if we were to adopt decimal subdivisions exclusively. Such a notion is so monstrous, that no one out of Bedlam would propose it. It would be just as rational as to suppose that we should adopt a system of multiplication in which none but these figures should produce exact results.

21. Now it would be the state of greatest perfection if we could imagine the unit of value, such as gold, to be some soft substance like putty, which we could subdivide into any number of parts whenever we pleased. But as that is impossible, the next best thing is to have it divided into that number of pieces which contains the greatest number of divisors possible. Now, 10 is not only not good, but it is extremely bad.

22. Now, considering that the present unit of the English coinage is of gold, and of its existing magnitude, it is quite easy to shew that there is no division of it at all comparable to that of 20,

12, and 4. No other combination within the same compass presents such a richness of factors. For it has no less than 26 factors, namely:—2, 3, 4, 5, 6, 8, 10, 12, 15, 16, 20, 24, 30, 32, 40, 48, 60, 64, 80, 96, 120, 160, 192, 240, 320, 480; whereas 1,000 has but 14 factors—2, 4, 5, 8, 10, 20, 25, 40, 50, 100, 125, 200, 250, 500. Hence the immense superiority of the present division of the pound sterling over that of the millesimal one for all purposes of physical division is manifest.

23. Moreover, every one's daily experience shews that while he naturally uses the decimal scale for multiplication, he never thinks of confining himself to decimal expressions for subdivision. People want, every day, halves and quarters, and half-quarters of things, and they call them so. But if we are to have decimal fractions exclusively, these expressions must be given up. A snuffy old woman in the Highlands wants a quarter of an ounce of snuff: she must no longer ask for that, but she must ask for a 25-100th of an ounce! And so on. A nation of savans might do that, but common humanity never will. We want a half or a quarter of a thing. The eye performs the work instantaneously. But if we go to decimal fractions, we must first of all divide the whole unit into 10, or 100, and then take 5, or 25 of these parts. Such a statement shews the manifest absurdity of such a thing.

24. The fact is, the whole confusion is based upon the supposition that decimal fractions are analogous to decimal integers, which is a complete delusion; and if this distinction in principle had been thought of, the question never would have been agitated at all.

25. Considering, therefore, these fundamental differences of principle between decimal fractions and decimal numbers, and decimal multiplication and decimal division, we may state the following as ascertained principles with respect to a coinage:—

1st. Where the unit of account is the lowest coin in common use between man and man, and the whole coinage consists of multiples of that unit, the decimal system is by far the best.

2ndly. Where the unit of account is a coin of some low magnitude, the decimal system will have some conveniences and some inconveniences. And as the unit becomes larger, the practical inconveniences will constantly increase over the advantages.

3rdly. Where the unit of account is very high, and placed far above the immense majority of transactions, the decimal system, which then becomes one of almost entire subdivision, is an intolerable nuisance, which could never subsist for any time at all.

26. From these considerations we see that it would be practically impossible to adopt any system of decimal coinage in this country so long as the pound sterling is the unit of account, and the coinage is one of pure subdivision.

Other schemes have been proposed, based upon the penny and the farthing. Of these we shall say something hereafter.

27. It is unquestionable that, for matters of account on paper, especially in large numbers, the decimal system affords an immense superiority. It is no doubt true, that it is physically impossible to divide anything into 3, 6, 7, &c. parts, by

decimals. We can, however, carry it as near exactness as we please. The philosopher can afford to balance this inconvenience against the other many advantages, and carry his calculations a few figures further with equanimity, when he knows that the ultimate result will come as nearly true as he pleases. But it is a far different matter with the daily transactions of life, where actual physical subdivision is required, and where the differences which arise from an imperfect division give rise to everlasting and perpetual quarrels. No man who has not studied history can conceive the intolerable practical misery that a depreciated currency causes to a people; and the very same effects are produced by an imperfect system of subdivisions. We shall have ample evidence of the truth of this in the course of this article. We shall now give some historical notices of the adoption of the decimal system of coinage by different nations.

Of the Decimal System of Coinage of the United States.

28. The currency of the various American colonies was originally the same as that of the mother country. But we have shewn, in the article *BANKING IN AMERICA*, that nearly all the States had issued enormous masses of paper currency, the effect of which had been to depreciate the pound in them. In each State, too, the pound had undergone a different degree of depreciation; hence there was, at the time of the Revolution, an immense confusion between the currencies of the different States. The weight of the pound sterling was 1,718½ grains of pure silver; but the pound of Georgia was 1,547 grains; that of Virginia, Connecticut, Rhode Island, Massachusetts, and New Hampshire was 1,289 grains; the pound of Maryland, Delaware, Pennsylvania, and New Jersey was 1,031½ grains; and the pound of North Carolina and New York was 966½ grains.

29. While, therefore, the pound, shilling, and penny had different values in different States, the Spanish dollar had a general circulation throughout all the States, but with a different rating. In the New England States and Virginia, it passed for 72 pence; in New York and North Carolina, for 96 pence; in the Middle States, for 90 pence; and in Georgia and South Carolina, for 56 pence.

30. When the Congress was formed, they found it necessary to issue a paper currency, to carry on the war. If this had been based on the pound, it would have caused intolerable confusion; besides there was no reason why the pound of any particular group of States should be preferred to the others. Congress therefore adopted the plan of basing their paper on the Spanish dollar, which had a general currency throughout the States. And when the national independence was secured, as it was necessary to have a national currency, the dollar was naturally adopted as the national unit in 1785.

31. Mr. Robert Morris, the Financier of the American Revolution, seems to have been the first who brought forward a scheme for a decimal coinage. On the 15th of January, 1782, he laid before Congress an exposition of the plan. He proposed to have an exceedingly *small* unit, and that the coins should be increased in a decimal ratio, so as to afford an easy calculation. This unit need not be a coin, but was to be a quarter of

a grain of pure silver. The lowest silver coin should be 100 of these, and be called a *cent*. To this 2 grains of copper were to be added, so that the coin should weigh 1 dwt. 3 grs. Five of these were to make a *quint*, or 500 units, and 10 to make a *mark*, or 1,000 units. This plan was not carried out, Mr. Morris having resigned, and Mr. Jefferson, to whom the matter was referred in 1784, considering the unit too small. Mr. Morris himself subsequently modified it by adopting a larger unit, which he assumed to be 12s 6d. sterling. This he called a pound, and divided by 10 in a decimal ratio, making the pound 1,000, the shilling 100, the penny 10, and the doit 1. It was found that the currencies of all the different States might be reduced to this common measure. The table of coins proposed in connection with this system, was—the crown, of gold, of 1,200 doits; the half-crown, 600 doits; the dollar, of silver, 300 doits; the shilling, 100 doits; the groat, of 20 doits; and the copper doit. Thus we see that, though the accounts were proposed to be decimal, the coinage was not decimal, but *binary* and *ternary*. In 1786, Congress adopted Mr. Jefferson's plan, and adopted a system of coins of these names: an *eagle*, to contain 246 $\frac{26}{100}$ grs. of fine gold, to be equal to 10 dollars: a *half-eagle* of similar proportions; a *dollar*, of silver, to contain 375 $\frac{64}{100}$ grains fine; *half-dollars* of similar proportions; a *double dime*, of 75 $\frac{120}{1000}$ grs. of silver; *half dimes*, and *cents*, of copper, the 100th part of the dollar, and *half-cents*. Thus, here we see the units divided into *halves*.

32. This report was presented to Congress, but no action was taken on it. In 1790, it was referred to Mr. Alexander Hamilton, the Secretary, and in the next session he presented an elaborate report upon it. He adopted the dollar as the unit, but contended that it should not be attached either to gold or silver exclusively. He proposed that it should correspond to 24½ grs. of pure gold, or 371½ grains of pure silver, each to pass for 1 dollar in the money of account; the alloy of each to be 1-12th, making the unit 27 grs. of standard gold, and 405 grs. of standard silver. These proportions for the coins were adopted, and an Act to establish a mint and regulate the coins was passed in 1792. The alloy was fixed at 1 part in 12 for gold, and for silver 179 parts alloy, and 1,485 fine. This proportion, however, was altered in 1837, when the alloy both of gold and silver was ordered to be 1 part in 10.

33. The introduction of the decimal system into the American coinage was considered as a great triumph of science, and its authors boasted that it had met with the boundless approval of all eminent men in America and Europe. If, therefore, it had been found in practice so very beneficial, we should naturally have expected that, during the period it has been in force, now just 70 years, it would have entirely superseded the former system of pounds, shillings, and pence, and the binary division of halves, quarters, eighths, &c. We should have expected that the existence of the former system would only have been known to professed antiquaries, who might have looked upon it somewhat in the same light as geologists do the extinct races of animals. And as for the common people, they never could have been expected to have heard of it at all.

But is this the fact in practice? It is found not to be so. By law, the dollar is divided into dimes, cents, and mills. But it is found in practice that the cent being taken as the unit, while calculations upwards are reckoned decimally, those *downwards* invariably proceed on the old binary scale; while the law declares that there shall be no division of the cent, except by 10, universal mercantile custom invariably proceeds by halves, quarters, eighths, &c. The mil is utterly ignored. Thus, Mr. Slater placed before the Decimal Coinage Commissioners, as an ordinary specimen of mercantile news, the following extract from a New Orleans Price Current:—"Louisiana sugar, of fair to fully fair quality, is quoted at 7 to 7½ cents per lb.; ginger at 6 to 6½ cents per lb.; tobacco at 7½ and 8½ cents per lb.; (and also, *exceptionally*, among a multitude of quotations exhibiting binary subdivisions, at 7½ and 8½ cents.) Green meat (pork) found purchasers at 7½ cents per lb.; and lard at 9½ to 9½ cents. On cotton, the advance within the week has been fully ½ to ½ cent per lb., whilst freight to Liverpool was taken at ½ to ½ cents this year, against ¼ to ¼ d. in 1855, and ½ to ½ d. in 1854. To Havre, cotton is taken on freight at ½ cents. A ship was taken for Bordeaux at ½ cent, and at Boston at ½ cent." No freights were quoted at decimal rates. Among the articles fluctuating in price by ½ cents, were found almonds, bacon, bagging, coffee, hides, lead, rice, soap, spirits.

34. Thus we see, taking this as a specimen of the mercantile custom in America, that commercial instinct obstinately rejects the decimal division, notwithstanding it is thrust upon them by law. And is it possible to conceive they would not long ago have adopted it without any law at all, if it had really been more suited for their purpose? just as some commercial establishments in this country have adopted decimals in their business, because it answers their purpose, without any law at all. And no wonder, for the binary subdivisions being found to be those most convenient for commercial purposes; 4ths could not be expressed in less than two figures, 8ths in less than three; 16ths in less than four; 32nds in less than five; and 64ths in less than six. Thus, for instance, in the above extract, $\frac{1}{4}$ = .625; $\frac{1}{16}$ = .0625; $\frac{1}{32}$ = .03125. What memory could stand such complexity? In the first place, it would be necessary to recollect that three figures in the quotation meant 8ths; four figures meant 16ths; and five figures meant 32nds; and then all the varieties of these fractions. This example shows that, for physical subdivision, decimals are intolerable.

35. Commercial instinct, therefore, utterly condemns decimal subdivision. But does the common practice of small dealers of all sorts support it any better in common life? The evidence before the Commissioners as decisively disproved that notion. During all this long period of 70 years, it has been found impossible to extirpate the old reckoning by shillings and pence. Professor Kelland, Dean of the University of Edinburgh, travelled extensively through the States, and gave in a most valuable paper to the Commissioners. When a nation

adopts a decimal coinage, it would naturally be expected that they should adopt decimal weights and measures. Indeed, some of the scientific witnesses examined before the Parliamentary Committee and the Commissioners, seemed to think that there was very little use of one without the other. But the Americans have not decimalized their weights and measures; they still retain the old ones they learnt from the mother country. How is this, if decimalization be so good? Still more should we expect that they would have made up their parcels in shops in tens, instead of dozens, to accommodate their money; but they have not decimalized their parcels. Professor Kelland says,—"The decimal system has been the legal system in America for 60 years, and dozens have not yielded a hair's breadth as yet. The same paper from which I quote, contains Valentines, in lots of 144, 36, 24, 18, 12, and 3, but no tens." In a Cincinnati paper, there were advertised for sale, 100 dozen jars, 100 dozen glass, 100 dozen cans. Shillings were the sums charged in Philadelphia, in the hotel bills. This appeared very strongly, too, in the book catalogues. The prices, though expressed in cents, were in reality accommodated to shillings. Some were marked 69 c., which in reality meant 5s. 6d. New York; others 63 c., which meant 5s. New York, the New York shilling being 12½ cents. The New England shilling was 16½ cents. On examining 12 pages of the catalogue, decimal prices were marked in 40 cases, and non-decimals in 117. Among book prices, 38 and 31 cents were most frequent, being remarkable numbers to choose, if there were no particular reason for it. The fact was, the former number meant 3s, and the latter 2s. 6d. New York.

36. Nor was this opinion unsupported by intelligent natives. The Rev. Joshua Leavitt, editor of the *Independent*, of New York, stated to the Committee of the Canadian Assembly, in 1855,—"I have no doubt of the superiority of the decimal system for the purposes of accounts; but for all the purposes of small circulation, in marketing, huckstering, and the like, I am persuaded that a duodecimal currency, like that of England, or like that which formerly prevailed in the city of New York, is far preferable. These small transactions of daily life outnumber the transactions of commerce almost infinitely, and it seems impossible to make a decimal currency as convenient in these as in the old currency. One reason is, that the decimal currency admits of only one aliquot division, that is, into halves." Mr. Leavitt then shows the excessive inconvenience of this want of divisible power. He also said,—"You are aware that in our (*i.e.* New York) marketing, and other small transactions, our business is still done in shillings and pence, the shilling being one-eighth of a dollar, and therefore corresponding exactly in its value to the old Spanish coin of one-eighth. The provincial currency of New York, before the Revolution, was framed upon the reckoning of 8 shillings to a dollar; and when the Federal currency was introduced in matters of coin, the common people still clung to the old shilling as a matter of necessary convenience in their pocket payments; and the experience of *sixty years* has not in the least diminished their attachment to this method of reckoning in

small payments. * * * And not only this, but we find the people of all parts of the country are learning more and more to use the vernacular currency of New York in their daily chaffering, from one end of the United States to the other. You will frequently hear people giving you the price of things in York shillings and York sixpences. I think this experiment is conclusive, and ought to be satisfactory to prove that the duodecimal currency in small transactions is a great public convenience. I am sure it is only this actual and felt convenience which has enabled it to maintain its ground for 60 years. * * *

For myself, I have no idea that we shall ever abandon the shilling currency; the lapse of generations has only fixed it more firmly upon us, and I fully believe that in a few years we shall have a Congress so governed by common sense, and so alive to the convenience and welfare of the people, that they will legalise the York shilling and sixpence, as the eighth and sixteenth of a dollar, and will give us from our own Mint a corresponding coinage." The Committee of the Legislative Assembly of Canada reported that coins representing the eighth and sixteenth of a dollar, were indispensable in small transactions in Canada; these coins being quite incompatible with a decimal coinage.

37. The introduction of a decimal system of coins into France, was easier than almost any other nation. The French coins, like those of Western Europe, were divided into livres, or francs, sols, and deniers. But the successive depreciations had brought the livre, or franc, down to below 10d., the sol was in fact equal to $\frac{1}{4}$ d., and the denier had altogether ceased to exist as a coin. The franc and the sol were therefore all that were wanted. It was only to call it five centimes instead of one sol, and the thing was done. Nevertheless, slight as this change was, it was effected with inconceivable slowness, if indeed it can be said to be done yet. The name of the livre was abolished, but that of franc retained. In order to make it weigh 5 grammes, it was found necessary to increase its weight by 1-80th part. Slight as this difference was, it gave rise to great disturbance. Dr. Gray says, "Even now, at the distance of more than half-a-century, it is by no means universally adopted in France, either in accounts, or still less in the great mass of ordinary retail dealings. As long as the old livres remained in circulation, whenever they were tendered in place of a franc, it became a constant source of contention which party was to be the loser by the bargain; one or the other must be so, as there was no coin to represent the actual difference, and the debate frequently ended in the weaker party giving two centimes, or one fiftieth part instead of one eightieth part over and above the livre, or as a centime was a rarity seldom seen, a livre and a sol were combined to represent a franc, and thus the receiver obtained three and three quarters per cent. beyond the real value of the new coin as compared with the old." Dr. Gray says that even now accounts are still frequently kept in livres, sols, and deniers, in the provinces, and even in Paris itself the prices of most of the common and smaller articles are constantly expressed in sous. *Galignani's Messenger* is marked ten sous, not fifty centimes, or five décimes. In 1856, an ordonnance was issued to prevent people crying

articles in the streets in sous! So long do the old habits of the people on so small a matter continue against all the efforts of a powerful government.

38. The French introduced their decimal system of monies into Sardinia in 1793. The *lira* was diminished to an equality with the franc; 100 old Piedmontese *lire* being coined into 118½ new lire, or francs. The Sardinian money is now in all respects the same as the French, the coins of the two countries passing freely in each other. This change was continued by the restored dynasty, after the overthrow of the French empire. By laws of the 12th August and 7th September, 1816, and 4th and 9th December, 1820, the new lira was declared to be the money of account, and all contracts were ordered to be made in that coin. In 1827, this system was extended to the Duchy of Genoa, and in 1843 to the island of Sardinia.

39. The French introduced the decimal system into Belgium in 1803. It was suppressed in 1816 in favor of the decimal system of the Netherlands, but the French system was restored in 1832. Before 1803, there were four distinct systems of coinage legalised, and in common use; namely, the Flemish livre, containing twenty schillings, each schilling twelve gros, each gros eight penninghens, and each penninghe three myten. This money was used chiefly for calculating the foreign exchanges, especially that upon London, and was continued so late as 1843. The great commercial houses kept their accounts in florins, divided into 20 sous, and each sol into sixteen deniers. This was also used in the exchange on Amsterdam and Hamburg. The Brabant florin, containing twenty sous, and each sol twelve deniers, was the money used in the transactions of daily life. And lastly, the government accounts were kept in livres tournois, divided into twenty sols of France, and each sol into twelve deniers. It is not surprising that the establishment of a single uniform system like the French was found to be a great improvement over such complication. But even here the immense time necessary to change the habits of a people is seen. The higher commercial classes in the cities keep their accounts in francs and centimes, but the old divisions of Brabant-guilders and stivers are still maintained by the small tradesmen and shopkeepers, though these coins have no monetary representatives. In usual life, every man in Belgium is compelled to have constantly at hand his tables of reduction of the various monies, both past and present.

40. Up to 1848, the Swiss coinage was in a state of fearful confusion. Each Canton coined money for itself, which would not pass in the neighbouring ones. Numerous coins from France and Germany also passed current at different denominations. The Federal Constitution of 1848 took away the power of the Cantons to coin money, and placed it in the hands of the Federal authorities, and demanded a monetary reform. In 1850, a new Federal law on coins was passed, which was brought into effect during 1851 and 1852. The moneys of account and usage were assimilated to the French, and all the old ones withdrawn and destroyed. What an enormous improvement this was, may be judged by the answer of M. Trümhler to the Decimal Coinage

Commissioners, who says that before 1850, there were current "all kinds of German dollars, German florins, Austrian zwanzigers, French five-franc pieces, subdivisions of the above, and about 160 different Swiss coins. The legal value of most coins was different in almost every Canton; and the current value differed everywhere from the legal value!" Thus, the same coinage circulates throughout France, Belgium, Switzerland, and Sardinia, and probably very soon the whole monies of the Italian peninsula will be assimilated, to the immense relief of travellers.

41. The late kingdom of the Two Sicilies had a coinage of which the ducat was the unit, divided into 10 carlini, and each carlino into 10 grains, and each grain into 10 calli. But accounts were kept only in ducats and grains. Payments, however, were seldom made in ducats, which was a very rare coin, but in Neapolitan dollars, worth 12 carlini, or 120 grains. And here we have a curious example of a decimal system of accounts, with a duodecimal coinage. For the coins in circulation were the dollar of 12 carlini, or 120 grains; half-dollars of 6 carlini, or 60 grains; pieces of 4 carlini, 3 carlini, 2 carlini, 1 carlino, and half a carlino. Copper coins are in common use, of half a carlino, 4, 3, 2½, 2, 1½, 1 grain, and half a grain.

This is a very strong and striking example of what we said above, that as soon as the unit of money becomes of any magnitude, the practical purposes of life irresistibly demand a *duodecimal* coinage. The very same thing as is manifested in America.

42. The Netherlands, like most other countries, were afflicted with great monetary confusion. The basis of the whole, however, was the florin, containing 20 stivers, or 20 pence English. In 1821, this coin was taken as the unit of the system, and divided into cents and half-cents. In this case we observe the transition was extremely easy. The stiver was already the 20th part of the florin, and its name was simply changed into 5 cents, as in France. Hence nothing new required to be done: it was simply to abolish a number of the old coins.

43. Portugal is an example of a country having a single unit, like that of China, and all the coins being multiples of that unit. The Portuguese unit is the rei, being equal to $\frac{4}{12}$ of a penny. The smallest coin is the 5 reis, or $\frac{1}{12}$ of a penny. But though all the moneys of account were decimal multiples of the rei, the coinage was not so. The coinage consisted of moldores of 4,800 reis; cruzaes, 400 reis; cruzados novos, or pinto, 480 reis; quartinhos, 1,200 reis; testoons, 100 reis; and vintems, 20 reis. This coinage has, however, now been abolished, and it has now been decimalized, as well as the accounts. The change came into operation in 1857.

44. In Russia, the silver ruble is the standard, being about 37 or 39 pence. This is divided into 100 copecks, and the copeck is divided into halves and quarters. The silver ruble was established as the unit of money in 1840, in place of the ruble of assignation, to which the issues of depreciated paper had reduced the Russian standard. The silver ruble was equal to 3½ paper rubles, but the subdivisions of the latter were the same. And here we perceive that as soon as it went below cents, the binary division was found necessary.

45. In Greece the drachma is the unit, being in value about 8½d. this is divided into 100 lepta, the latter being about $\frac{1}{3}$ of a farthing. The drachma, however, is an imaginary coin, and foreign coins of gold and silver are current at a regulated value. The only Greek coinage is copper. Hence, although accounts are kept decimally, there is in reality no decimal coinage. Drachmas, half and quarter drachmas, are supposed to exist. Here we see as usual binary division for practical purposes.

46. Such are the examples of actually existing decimal systems both in accounts and coinages, and we shall find that they will throw much light upon the important question whether it is expedient to decimalize the coinage of this country. We observe then, that the highest unit in a decimal system of coinage is the American dollar, which is divided nominally into dimes, cents, and mills. But practically, the only moneys of account are dollars and cents. The next highest is the Neapolitan ducat, 41½ pence, divided nominally into 10ths, 100ths, and 1,000ths. But in practice the accounts are kept in ducats and grains only. The coinage is entirely duodecimal. The next highest unit is the Russian ruble, about 38d., both nominally and in practice, divided into 100 copecks, but the copeck is divided into halves and quarters. Then comes the Netherlands, with its unit of 20d., divided into cents, and these into half-cents. Then the French, Swiss, Belgian, and Sardinian unit of 10d. nearly, divided nominally into decimes, centimes, and milliemes, but practically only into francs and cents. Here the centime is a coin so much below all ordinary use that there is no occasion for its division, and whether in commercial transactions it is so or not, we have no information. Then comes the Greek unit, also divided into 100ths; and lastly, the Portuguese unit, which is below the purposes of common life, and, therefore, does not require division. In all of these we observe that practically people refuse to go below cents in their accounts; so that we may fairly consider them as the pivots of the coinage, and whenever they go below cents in business, they invariably reject the decimal division, and adopt a binary one. And this becomes clearer as the nominal unit becomes larger.

47. The question of decimalizing the coinage and accounts of this country has been mooted at various times. In 1816, a royal commission was appointed to consider the possibility of establishing a more uniform system of weights and measures. They reported that the existing subdivision of weights and measures was far more convenient for practical purposes than the decimal scale. In 1824, Sir John (afterwards Lord) Wrottesley brought forward a motion in the House of Commons for inquiring into the applicability of the decimal system to coins. He proposed pounds, double shillings, and farthings, reduced four per cent. in value; in fact, what is now known by the name of the pound and mil scheme. The motion was, however, withdrawn, and the currencies of England and Ireland were soon afterwards assimilated. The standards of weight and measure were lost when the Houses of Parliament were burnt, in 1834, and in 1838 a Commission was appointed, consisting of the Astronomer-Royal (Mr. Airy), the President of the Royal Society (Mr. Francis Baily), Mr. J. E.

Drinkwater Bethune, Sir J. W. F. Herschel, Bart., Sir J. G. Shaw Lefevre, Sir J. W. Lubbock, Bart., the Very Rev. George Peacock, Dean of Ely, Lowndean Professor of Astronomy, and the Rev. R. Sheepshanks, all men distinguished in science, but not one having any practical knowledge of commerce. The Commissioners reported in 1841, strongly recommending the decimalization of the coinage, on the same system as already proposed by Sir John Wrottesley. In 1843, a second Commission was appointed, containing the names of the Astronomer-Royal, Sir John Herschel, Sir J. G. S. Lefevre, Sir J. W. Lubbock, the Dean of Ely, and Mr. Sheepshanks, members of the former Commission, to whom were added, the Marquis of Northampton, President of the Royal Society; the Earl of Rosse; Lord Wrottesley; and Professor Miller. The Report of this Commission, composed exclusively like the former of men of science, agreed with the former, and proposed to carry out its recommendations.

48. In 1847, a motion was made in the House of Commons, by Sir John Bowring, on the 24th April, for an Address to the Crown in favor of the coinage and issue of silver pieces of the value of 1-10th and 1-100th, of the pound sterling, in order to introduce the decimal subdivisions of the coinage. The motion was withdrawn, on the engagement of the Chancellor of the Exchequer that pieces of the value of the tenth of the pound should be coined. This was done, and these pieces called florins, are now in general circulation.

49. On the 26th of March, 1853, the Commissioners of 1843, hearing that a coinage of copper was in contemplation, addressed a letter to Mr. Gladstone, then Chancellor of the Exchequer, strongly urging upon him that this copper coinage should be in pieces of the value of 1-1000th, 2-1000ths, and 4-1000ths of a pound, being 4 per cent. below the present farthing, half-penny and penny, with the view to the introduction of the decimal system. On the 5th of April, Mr. Gladstone was asked in the House of Commons whether it was the intention of Government to carry out the decimal system, by coining the new copper money on that scale. The Chancellor replied that there was no intention on the part of the Government to make any change in the copper coinage. Nevertheless, considering the great importance of the subject, they would support the motion for a Committee by one of the members. Accordingly on the 12th of April, on the motion of Mr. W. Brown, member for South Lancashire, a Committee was appointed to consider and report upon the expediency or otherwise of adopting a decimal system of coinage.

50. This Committee examined twenty-five witnesses, all of whom were in favor of a decimal system of coinage, and all recommended the pound and mil scheme, as the plan of the former Commissioners was called, with the exception of Mr. Headlam, member for Newcastle, who strongly urged the expediency of making the $\frac{1}{4}$ d. the basis of the coinage, and multiplying from that unit. This would make the pound sterling equal to £1 0s. 10d. The Committee made their report on the 1st of August, strongly recommending the adoption of the pound and mil scheme. They recommended the withdrawal of the half-crown, the 3d. and 4d. pieces, and the introduction of

copper coins of 1, 2 and 5 mils, and silver coins of 10 and 20 mils.

51. The Report of the Committee excited much discussion in the newspapers and among the public, and was followed as usual by a great eruption of pamphlets. But a most extraordinary difference of opinion soon manifested itself among the zealous advocates for a decimal system. No less than eleven different schemes were brought forward, and urgently pressed, all based on some particular coin of the existing money. Most of them, too, were hostile to the adoption of any rival scheme, and preferred to maintain the existing coinage rather than have any plan but their own adopted. These rival schemes introduced greater complexity into the question. In 1855, the House of Commons passed a resolution, by 135 to 56, in favour of the further extension of the decimal system. But, before finally deciding, the Government referred the whole matter to a Commission, composed of Lord Monteagle, Lord Overstone, and Mr. J. G. Hubbard. This Commission made a preliminary report in April, 1857, signed by all its members. They examined a number of witnesses, who were adverse to the pound and mil scheme, and they prepared a series of questions to be addressed to eminent persons who lived in foreign countries, where the decimal system was already in use. Moreover, Lord Overstone prepared a series of questions, framed with the view of bringing into distinct notice and examination some of the advantages of the present system of coinage, and some of the principal difficulties and objections which have been suggested as attending the introduction of a system of decimal coinage.

52. The evidence given before this Commission, together with the experience gathered from foreign countries, and the answers to Lord Overstone's questions, may be said to have completely changed the aspect of the question, and to have conclusively settled it against the decimalization of the English coinage. Lord Monteagle retired from the Commission, and the final report was delivered on the 5th April, 1859, signed only by Lord Overstone and Mr. Hubbard. The conclusions which they jointly arrived at were, that the experience of foreign countries, where the decimal coinage had been introduced, was full of instruction and warning to us; but the circumstances of this country were so different, that no safe conclusion could be drawn from them. That commercial men as well as others were greatly divided on the subject. That it was difficult to come to any useful conclusion as to the merits of the decimal system in the abstract, and distinct and peculiar difficulties attended each separate form proposed for adoption. That the penny scheme had many advantages over the pound and mil scheme; nevertheless that the state of public feeling would not allow the pound to be disturbed. That as regarded the pound and mil scheme, there appeared to be an advantage in calculations, though the extent of the advantage was much disputed. That with regard to the reckonings of the shop and the market, and for mental calculations generally, the present system was unquestionably the best, as well as regarded the coins, provided by the rival schemes. That the pound and mil scheme could not be looked upon as a demonstrative improve-

ment, but rather as a doubtful experiment, attended with many transitional difficulties, partly of a moral character, arising from the difficulty of changing established usages and habits, and partly mechanical, arising from the non-interchangeability of the old and new coins. The advantages of decimal accounts might be attained without disturbing the coinage, by a more extensive use of the practice now adopted at the National Debt Office, and the principal Assurance Offices. That under existing circumstances, it was not desirable to disturb established habits by an attempt to introduce any new principle into the coinage alone.

53. These were the joint resolutions adopted by the two Commissioners. But Lord Overstone prepared a draft report, most ably and fully discussing the evidence obtained by the Commissioners, and weighing the alleged advantages and disadvantages of each scheme with perfect impartiality. The clear and convincing way in which the question is argued in all its different bearings, may be considered to have finally disposed of the subject. (DECIMALIZATION.)

COINZE, F. V.

Bases fondamentales de la bonne Culture. Paris, 1847.

Introduction à un plan général d'administration civile et de colonisation Agricole en Algérie. Paris, 1847.

Question de l'organisation du Travail. Paris, 1848.

COLBERT, Junior. Pseudonym.

The Age of Paper; or an Essay on Banks and Banking; containing the history of the most remarkable Paper Bubbles. London, 1793.

COLBERT, JEAN BAPTISTE, the greatest minister, probably, that ever ruled France, and by many erroneously supposed to be the author of the Protectionist system, was born at Reims, the 29th August, 1619, the son of Nicholas Colbert, a small landowner of Champagne, and Marie Pussort. His father was styled Lord of Vandières, and was of Scotch descent, and after his son rose to greatness, many curious inquiries were started whether he had ever been in trade, or was entitled to be called noble, without any very satisfactory answer.

Jean Baptiste was placed very young in a mercantile house in Lyons, but his ambition pointed to Paris, and by means of his uncle, Colbert of St. Poulange, Intendant of Lorraine, and brother-in-law of the Secretary Le Tellier, he was placed in his office.

Being sent to Sedan, where Mazarin was in exile, by the Secretary, with a letter of the Queen, with orders to bring it back with him, the Cardinal wished to keep it. But Colbert insisted on having it back, notwithstanding the anger of the Cardinal. Some time afterwards, when he returned to Paris, being in want of a Secretary, he applied to Le Tellier, who gave him Colbert. The Cardinal was in reality pleased at the firmness of the young man in obeying his orders, and desired him to serve him as faithfully as he had done his former master.

Colbert soon rose high in the Cardinal's esteem, who appointed him his intendant, or steward. In 1649, he was appointed one of the Council of

State, and, during the Fronde, he was the minister's right-hand man. When the minister was banished, Colbert remained in Paris, and was his agent for communicating with the Court.

In 1650, he married Mary Charon, whose father had made a large fortune in trade. Being threatened with a heavy tax, Colbert got him exempted, and in return the merchant gave him his daughter, with a handsome dowry. Colbert's family soon shared the bounty of the minister, and by 1655, they were all placed in good posts.

Louis XIV. was kept, during his minority, in a state of shameful penury. But while the king was in want of the commonest necessities, the profligate ministers batted on corruption. Mazarin, with boundless rapacity, and by gaming, accumulated a fortune, which, under the skillful management of Colbert, grew to colossal dimensions. The financiers and farmers of the revenue lived in the most profuse splendour, while the king and the people were starving. The chief minister of finance was Fouquet, who emulated Mazarin in his rapacity. It has been urged as a charge against Colbert, that he laboured systematically to overthrow him, to step into his place. The evidence in favour of the charge is not very clear, and even if it were, Fouquet would not be entitled to much sympathy. Mazarin thought more than once of displacing Fouquet, but in 1657, Colbert dissuaded him from it, alleging the merit of the superintendent. In 1659, however, he drew up an elaborate memoir on the finances, showing all the mischief of Fouquet's system, for the private information of the Cardinal. Fouquet obtained a copy of it by bribing the post-master.

In the same year, Mazarin sent Colbert to Pope Alexander VII., to persuade him to restore the Duchy of Castro to the Duke of Parma, and to assist the Venetians, who were besieged by the Turks in Candia. But the Pope hated Mazarin, and so the mission failed. After remaining in Italy four months, and vainly urging some other states to assist the Venetians, he returned to Paris, and found Mazarin struck with the malady of which he died in the following year.

As death drew near, Mazarin became alarmed lest the king might strip his family of his ill-gotten wealth. Colbert advised him to present it all to the king, being well assured that he would give it all back again. The king accordingly gave him permission to dispose of it as he pleased.

Mazarin left him his executor, and in his will recommended him to the king, as an adequate return for all the benefits he had received from him.

The finances had long been in terrible disorder. The farmers were all occupied in wringing as much as they could from the people, and giving as little as they could to the treasury. The king, by an unexpected force of will, determined never again to submit to such a thralldom as that of Mazarin, and to be his own minister. He used to preside regularly at the Council. Fouquet's accounts were purposely mystified, but at the next meeting of the council the king used to astonish every one by unravelling all their mystification, and exposing their errors. The fact was, that Colbert used to be closeted with him for several hours every evening, initiating him into the mysteries of finance.

The kingdom was overwhelmed with debts. The interest paid was 50 per cent. Sully had tried to reduce the *Rentes* on the Hotel de Ville, but this produced an insurrection, and he was forced to abandon it. In 1648, Mazarin was unable to pay the interest, and this was one of the ostensible pretexts of the Fronde.

The fate of the financiers was soon settled. There were abundance of precedents for such cases. France, to her misfortune, had been many times in a similar predicament. Eight times before, Chambers of Justice had been appointed, to make the financiers disgorge their plunder. Fouquet was struck down in the very height of his greatness. The king, intent on his destruction, treated him with extraordinary graciousness. When all was ready, the execution was left to Colbert, and he was arrested on leaving the council. In November, 1661, an edict was issued, denouncing in vehement language, the malpractices of the financiers. On the 11th December, all the clergy were ordered to invite their congregations to come forward publicly, and give information of any financial crimes committed since 1635.

The rapacious crew were struck with terror. Many fled the country, many were imprisoned, some were tortured, and some were hung. Five hundred were condemned to make restitution to the amount of 110 millions.

Louis determined that Fouquet should have no successor, any more than Mazarin. A few days after his arrest, a royal council of finance was formed, with the Maréchal de Villeroi nominally at its head, but with Colbert as the real man of business. Its meetings were held every week, and the king regularly attended, and signed every order for money. Hereditary rights to offices in the finances were abolished, and it was enacted that the State should have the first lien on all the property of the financiers, and their profits were reduced from 5 sous to 9 deniers the livre. The sums disgorged by these, in the hands of the Chamber of Justice, supplied some ready money, and Colbert made the financiers accept bills at 15 months for the taxes, which supplied him with more.

The restoration of the credit of the country was marvellous. Previously to this time, the government officials of all sorts were obliged to pay court to the financiers to get paid, and they thought themselves lucky if they could get bills at 18 months or two years. In 1662, the king not only paid off all the arrears of 1660 and 1661, but made them an advance. He not only refused 1,600,000 livres to give up his purchase of Dunkirk, but he borrowed 5,000,000 at 5½ per cent. to pay for it. In September, 1661, France and Europe saw the king in constant difficulties, living on the credit of his friends, and unable to undertake any extraordinary expense: in September, 1662, Colbert uttered the proud boast, that all Europe was afraid that the king would buy up any town or country he had a fancy to. He said that his master had only to stamp his foot on any part of France, and money would spring up.

In 1674, during the height of the war with Holland, the king not only paid back 50,000 livres which the merchants had presented him with, but added a gift of 6,000 more, to requite them for their zeal.

The best eulogy on Colbert's management of the finances is a simple statement of the receipts and expenditure during the first eleven years of his administration, till the war with Holland. They were as follows:—

	Receipts.	Expenditure.
1662 ...	75,568,750 liv.	74,826,456 liv.
1663 ...	48,053,826	46,826,576
1664 ...	68,602,796	68,071,008
1665 ...	90,888,978	90,871,856
1666 ...	67,459,001	66,611,895
1667 ...	72,520,925	72,090,744
1668 ...	70,875,374	70,875,381
1669 ...	76,468,967	76,283,749
1670 ...	78,900,755	77,209,879
1671 ...	87,501,077	83,875,723
1672 ...	87,067,787	87,928,561
	<u>813,903,231</u>	<u>810,471,228</u>

But, says M. Joublean, from whom these figures are taken, there is to be deducted from the receipts the sum of 4,292,773 livres on account of money carried from one year to another, leaving a total actual receipt of 809,610,458 livres, leaving on the whole period of 11 years an excess of 860,770 livres of expenditure over receipts. Such were the halcyon days of French finance! Gone, we fear, never to return.

There was one evil, however, which Colbert tried in vain to grapple with, though as long as he lived it was kept in somewhat moderate bounds, but after his death was one of the principal causes of the ruin of the finances and the monarchy.

Since the times of the last Valois of the first branch, certain sums had been paid to bribe foreign princes. These were called *ordonnances du comptant*, because they were general orders on the treasury payable on demand, without specifying the particulars. This plan was used afterwards to cover the greatest abuses. The princes of the blood had no civil list, and all their expenses ought to have been checked by vouchers by the proper officers. This was, however, naturally felt to be very degrading, and consequently they adopted the cover of an *ordonnance du comptant*. This had grown to an enormous abuse. From 1630 to 1656, the average yearly amount of the *ordonnances du comptant* had been 10 million livres. From 1656 to 1659, they suddenly rose to upwards of 320 millions. Such extravagance alarmed Colbert, and he tried in vain to abolish it. What could he do against the extravagance of the king, and the rapacity of his mistresses, and the crowds of greedy courtiers, and all the herd of kings, foreign ministers, and patriots, who were all clamouring for French gold? All he could do was to endeavour to regulate them a little, and thrust them on the king's notice as often as possible.

In 1674, the king's credit was so good that Colbert advised him to open a bank to receive public deposits to the amount of 12 millions. Everyone might place what sum he pleased, and received an order signed by the farmer-general, payable one year after date, with five per cent. interest. This bank was found of the greatest service during the war, and was retained for some time after the peace, and enlarged to 20 millions.

On the 31st December, 1681, the fund-holders who held stock created in 1674, 1676, and 1679, received notice that their principal would be paid

off, and those who had taken loans at the 14th, 16th, and 18th denier (or at 7 1-7th, 6 2-3rds, and 5 5-9ths per cent.) were allowed to convert them into new stock at the 20th denier, or five per cent.

Lastly, to shew the difference between the state in which he found France, and the state he left it in at his death, we may give these figures :

	Taxes.	Interest on Debts.	Net sum received by the Treasury.
1661 ...	84,222,196	61,877,184	22,8,97281
1688 ...	116,053,374	23,365,274	22,6404,00

These are sufficient, as financial details. We shall turn to some other parts of his administration.

No sooner was Colbert firmly seated in power, than he began to develop his gigantic schemes of organization.

The first thing to reform was the tariffs of the custom-houses, foreign and domestic. Nothing could be more complicated and bizarre than they were; and they were made an instrument of enormous oppression in the hands of the farmers, who could alter the duties as they pleased, and were always sure of being able to bribe the judges to decide in their favour. Each province had its own custom-houses. Sully had tried to do away with these barriers, and failed. The States General, in 1614, remonstrated against them in vain. Private interests were too strong, and instead of being diminished, the burdens were increased. In 1621, Louis XIII. even erected new ones where none had ever been before, and new imposts were levied in spite of the complaints of the merchants, many of whom abandoned commerce from these vexations. Agriculture itself was weighed down, large districts were left fallow, and the country was filled with beggars and vagabonds. In 1654, the six corps of merchants in Paris presented a remonstrance to the king, saying that excessive taxes destroyed industry.

Colbert wished to sweep away all these barriers; but he could do nothing. Stolid resistance was too powerful for him. Most of the provinces were systematically hostile to anything which could assimilate them to each other. They were incorporated with the monarchy on condition of retaining certain privileges, and they were pertinaciously attached to their individuality, and valued these barriers and custom-houses for that very purpose. Colbert had triumphed over large masses of individuals, but he could not overcome the Estates of each province. All he could persuade them to do was to modify and simplify their tariffs. There were five great farms in force through a considerable number of the provinces, called, from that, "The Provinces of the Five Great Farms." Others were called "The Provinces foreign to them;" and the two bordering on Germany, Alsace and Lorraine, as well as several seaports, were called "provinces treated like foreign countries," because they were allowed complete free-trade with foreign countries, and goods coming from them were treated exactly as if they came from foreign countries. These great farms being held by different leases, gave rise to an immense amount of trouble and tyranny, and a great multiplication of offices. Colbert reduced them all into one, and immediately doubled the produce.

Louis XI. founded a postal service in 1464, for

the use of Government, but private persons were not allowed to send their despatches by it. The universities had established private posts of their own, to enable their students to maintain a correspondence with their families, and many towns had also established them for the sake of commerce. But, of course, their charges were matters of private arrangement. In 1597, Henry IV. first established post houses at regular intervals on the great roads to Spain and Calais, and an officer, called the comptroller-general of the posts, was appointed, who was bound to keep them up at his own expense, upon receiving all the profits. M. d'Almeras, the comptroller-general under Louis XIII., first allowed the government coaches to carry private letters, and mails were regularly established between different towns. This device was found very profitable, and in 1627 a regular tariff was made to fix the price for carrying letters and parcels. The government posts, however, found powerful competitors in the private ones. In 1672, Colbert bought all these up, and the revenue of the post office soon rose from 100,000 to 3,700,000 livres.

Colbert having instituted a chamber of justice to call the financiers to account, proceeded to a verification of the titles of nobility, which was done much more easily than might have been expected from the numbers of those touched. The kings of France when in need, had often created and sold titles of nobility, and nevertheless had no compunction in taking them away again. Even Henry IV. after having sold several titles in 1593, annulled in 1598, all those created within 20 years, on the pretence of an inadequate payment, and the injustice done to others by exempting them from their share of taxes. Yet in 1606, he sold many new ones. In 1638, Louis XIII. sold several titles in each province, to celebrate the birth of his eldest son, and in 1640, all the ennoblements for the previous 30 years were annulled. On the accession of Louis XIV. two persons in each *généralité*, or province, were allowed to purchase nobility for 4,000 livres. Two years afterwards 50 titles were sold in the free towns of Normandy, and in 1661, all the titles created in 1606, and revoked in 1640, were reconfirmed for a payment of 1,500 livres.

In 1664, Colbert retracted all these titles. The pretext was that the king during his minority had improvidently sold them for inadequate sums, to the damage of many parishes, which were thus unable to pay their *tailles*. All titles granted since 1634 were revoked, and their possessors exempted from the *taille* of 1665. The estates of the different provinces were ordered to institute a rigorous investigation into the rights of innumerable persons who usurped titles without any claim at all. This investigation was strictly executed during many years, and the usurpers fined 50 livres each. In Brittany these fines produced 8,000 ecus up to 1670; in Provence 1,257 families were stripped of their borrowed plumes, and had to pay 63,000 livres. The fines levied throughout the whole kingdom amounted to 2 millions, and the other taxpayers were greatly relieved. According to this there were 40,000 sham nobles reduced to the ranks.

Colbert's next care was to reform the coinage. The astonishing frauds perpetrated on the French coinage during several centuries, are fully detailed

in the article **COINAGE OF FRANCE**. It may be mentioned as one redeeming point in Mazarin, that during his greatest financial embarrassments he did not tamper with the coinage, as even Sully and Richelieu had done. Colbert, as might be expected, followed Mazarin's example, which he probably advised. Like everything else the mints had been farmed out to the masters, who paid a fixed price, and were allowed to coin what they pleased. In 1662, Denis Genisseme obtained a lease of the mints for the sum of 102 thousand livres, on which there were charges to the amount of 58,646 livres, leaving 43,354 of net profit for the treasury. An edict in January 1666, revoked this lease, and the king took the management of the mint into his own hands, and henceforth the mint masters bought, manufactured, and sold bullion and coin on account of the State, receiving a fixed price per marc for their labor. France was at this time full of Spanish pistoles and light ecus, which were all much below their legal weight. They were all called in, but Colbert enacted that the holders of them should receive good coin, weight for weight for what they brought in. In 1679, the seigniorage on the coinage was abolished by law, which had been such a sore temptation to preceding kings, and had been the chief cause of their so frequently decrying and recoining the money. On the 21st August, 1671, an ordinance was published to render uniform the weights and measures in all the ports and arsenals of France. Colbert wished to extend this measure to the whole kingdom, but found it impossible, from the tenacity with which people cling to their old habits.

Mazarin had conferred state pensions on literary men, among whom the historian Mézerai figured for 4000 livres. Fouquet, who had liberal and generous tastes, pensioned many out of his own purse, among whom were Corneille, La Fontaine, and Scudery. Colbert, who was not devoid of similar tastes himself, and to encourage the king in what would contribute so much to his grandeur and magnificence, presented him a list of thirty-three of the most eminent literary and scientific men, who all received pensions of various amounts. Not content with that, he sent various sums to distinguished men in foreign countries. The totals were about 100,000 livres a year. He also founded the *Académie des Inscriptions et Belles Lettres* in 1663; the *Académie des Sciences* in 1666, to advance geometry, astronomy, physics, mechanics, anatomy, and chemistry. He also founded the Academies of painting and sculpture.

In 1664, he was appointed superintendent of public buildings, and the restoration of the finances soon displayed itself in their progress. The splendour of these gave rise to the most extravagant reports of their cost. Voltaire stated this at 500 millions, Mirabeau carried it up to 1,200 millions, and Volney surpassed every one by raising it to 4,600 millions. It was currently said that Louis had burnt the accounts to hide the proofs of his extravagance. But they have all since been found, and the sum total spent by Louis XIV. on his public buildings is proved by documents, verified by unimpeachable witnesses, to have not exceeded the sum of 166 millions from 1661 to 1710, including several sums for other things. It may be interesting to give the figures, shewing the expense of these famous places.

The total expense of Versailles, including churches, Trianon, Clugny, St. Cyr, the works of Marly, &c. &c., pictures, marbles, furniture, &c., was 116,796,229.	
Saint Germain.....	6,455,561
Marly, except the Waterworks	4,501,279
Fontainebleau	2,773,746
Chambord	1,225,701
Louvre and Tuilleries	10,608,969
Arc de Triomphe de St. Antoine	513,755
Observatory of Paris	725,174
The Invalides	1,710,332
Place Vendôme	2,062,699
Val-de-Grace, about	3,000,000
Meulan	88,412
Canal of Languedoc	7,736,555
Manufactures at Gobelins and Savonnerie	3,645,943
Manufactures in other towns.....	1,707,990
Literary Pensions	1,979,970

165,534,315

The immense advantages which would result from effecting a junction between the Atlantic and the Mediterranean, were so obvious, that the subject had long occupied the attention of the kings of France. It is even said that Charlemagne had some thoughts of executing the work. His sagacious project of uniting the Rhine and the Danube has only been executed in our own day. Only 14 leagues separated the Aube from the Garonne, and projects for uniting them had been discussed by the councils of Francis I., Charles IX., Henry IV., and Louis XIII. The real difficulty in the project was to insure a sufficiency of water at the summit level, 600 feet above the sea, to which the canal would be obliged to rise.

Pierre Paul de Riquet, Lord of Bonrepos, of a noble Provençal family, holding an office in the *gabelle*, owned an estate at the foot of the mountain which was the chief obstacle to the success of the work. The execution of this grand project had been his day-dream for years. After numerous experiments in his own grounds, he thought that he had at last succeeded, and communicated his ideas to the Archbishop of Toulouse, the Bishop of Saint Papoul, and other distinguished persons. They went over the ground with him, and were satisfied of the soundness of his plans. The Archbishop desired him to write to Colbert about it. The project was, moreover, laid before the Estates of Languedoc, who appointed a commission to examine it. It was decided that Riquet should make an experimental trench at his own expense. This would cost 200,000 livres, but Riquet was so confident of success that he undertook it. In May 1665, Riquet came to Paris, and obtained letters patent, authorising him to dig trenches to ascertain the fall of the water. In two months afterwards the work had succeeded beyond all expectation, and success was certain.

It was now proved beyond a doubt that the Canal could be made. But where was the money to come from? It was calculated to cost about 6 million livres, and the king, who spent more than that a year on his palaces, was unwilling to advance the money. The Prince of Conti, Governor of Languedoc, tried to induce the Estates to assist in it, but they refused to have anything to do with it. Riquet, not disheartened, proposed that the king should convey in fee simple to the man who would undertake it, the whole canal, and its necessary works. The question was long debated at the council, and Riquet's proposal was finally accepted, by the influence of Colbert.

The work then went on, and in six years was opened for a considerable distance by the Archbishop of Toulouse, who traversed it from Naurouse to Toulouse. Riquet died in October 1680, six months before his grand work was finished, in 1681. The total length from Cette to the Garonne was 54 leagues, which required 75 locks. Louis XIV. contributed 7,736,555 livres, the Estates of Languedoc 5,807,831 livres, and Riquet himself, 1,957,517 livres. Besides these, were extra works, warehouses, buildings, &c., which brought up the total expense to about 17 millions. In 1684, Louis sent Vauban, after the death of Colbert, to see if the works wanted repairs. The great engineer stood long, absolutely amazed at the magnificence of the works, the difficulties that had been surmounted, and especially at the grand reservoir, 7,200 feet long, 3,000 feet wide, and 120 feet deep.

Colbert then undertook the grand work of codifying the laws of France, which were in a state of the greatest confusion, being nothing but a medley of conflicting ordonnances and local customs. In spite of the warmest opposition from interested parties, the work was done, and the ordinance of Civil Justice was published in 1667, and was further amended in 1669. A medal was struck in honor of its publication, and it remained the civil code of France for 130 years, and was, in fact, the basis of the *Code Napoléon*. In 1670, a criminal code, and in 1673, a commercial code, completed the organization of public law. In 1669, a code regulating the "woods and forests," which occupied the labors of 21 commissioners for 8 years, was published, and remains, after some modifications in 1827, which have been much censured, the law in force at the present day.

Richelieu had created the navy of France. Before him, Holland, England, Spain, Turkey, Genoa, and Venice, had all powerful fleets, but France had only a few ill equipped vessels. In 1600, France was not strong enough to chastise the pirates and corsairs who ravaged her coasts. The town of Rochelle had seventy vessels, while Louis XIII. was obliged to borrow some from England, and their crews refused to fight against their co-religionists.

In 1626, Richelieu was appointed Grand Admiral of France, and by 1639, he had created a powerful navy of 92 ships and vessels. But after his death the fleet went to ruin. In 1661, the merchant navy of France did not exceed 200 vessels. It was said that there were 6,000 French sailors serving in foreign vessels. The fleet did not nominally exceed 20 or 22 vessels, most of which were rotting in harbour, and not more than two or three French ships of war had been seen at sea since 1650. Colbert, in 1669, was appointed Minister of Marine, and immediately determined to create a navy. All the dockyards and arsenals were set in motion, and in two years, in June 1671, France had 12 ships of the first rate, from 70 to 120 guns on three decks, amounting to 20,800 tons; 24 second rates from 56 to 70 guns, of 27,800 tons; 32 third rates of from 40 to 50 guns, of 28,950 tons; 24 fourth rates from 30 to 40 guns, of 17,250 tons; 28 fifth rates from 18 to 28 guns, of 13,150 tons; being 120 ships of war of 107,950 tons, besides 21 fire ships, and 55 frigates and smaller vessels, making a total of

196 ships and vessels. Before this time France was in the habit of buying her ships of war from other nations. Colbert founded a Board of Construction, and hired Dutch shipwrights, who were then considered the most skillful in the world, to teach the French their art.

It was found that vessels were the better the quicker they were built. The Venetians built a war galley in 24 hours before Henry III. The Dutch had offered, on three months' notice, to furnish a ship a day, ready for sea. Colbert ordered that no French vessel should be longer than three months building. The crews were generally got together chiefly by impressment. Colbert organized a general register of seamen, who were placed under commissioners. The first enrolment in 1670, numbered 36,000 sailors; in 1683, it was 77,582. In 1671, the French navy compelled England to abandon her pretensions to the sovereignty of the seas, by making all foreign vessels strike their topsails. In 1676, the French Admiral Duquesne gained a great victory over the Dutch commanded by De Ruyter with a much superior force.

Such were the parts of Colbert's administration which were indubitably glorious, we must now unfortunately turn to those which were not equally successful, and where his genius for organization and regulation did an immensity of mischief to his country.

The legislation of Sully with regard to agriculture was distinguished by the most enlightened sagacity. Firmly convinced that agriculture was the true source of the wealth of a country, he did everything to encourage it, while unfortunately he was adverse to manufactures, as he conceived they carried money out of the country. He saw that the true interests of agriculture demanded a perfectly free trade in exporting and importing, and this he maintained. He caused Henry IV. to repeal the prohibition of the grain trade with Spain, and to reprimand severely the Parliament of Toulouse for forbidding the export of corn from Languedoc. A magistrate of Saumur was threatened with severe punishment for a similar proceeding. On this occasion Sully wrote to the king that if every officer did the same, the people, and consequently the king, would soon be without money at all. In consequence of this wise legislation, a general abundance soon pervaded the kingdom.

Colbert unfortunately pursued the opposite course, with the most disastrous consequences. Not that he was hostile to agriculture, as has sometimes been said, but he carried his mania for regulation into a subject in which all regulation was mischievous, and the only thing wanted was absolute freedom. In 1662, and 1663, there was a dreadful famine, which added to the misery caused by the exactions of Fouquet, reduced the people to the greatest distress. These calamities unfortunately impressed the idea on Colbert, that the traffic in grain should be forbidden, a fatal doctrine, which it was one of the great glories of the Physiocrats to overthrow. In February 1662, the Government made immense purchases of grain in Poland, Holland, Sicily, and Africa, with which it supplied the province of Normandy, Rouen, Paris, and all the provinces bordering on the Loire. It also distributed from 30 to 40,000 loaves of bread every day, by this means the price

of corn was kept at 846 livres the muid, in these provinces, while it was at 650 livres in the other provinces. Multitudes of persons poured into Paris, while in the provinces great numbers died of starvation.

Thanks to the efforts of the Physiocrates, the boundless mischief of interfering in the commerce of grain are so well understood now, that it would only be waste of time to reiterate their arguments, which are now undisputed points of economic science. Colbert, however, was bitten with the mania of regulation, and accordingly, during the whole of his administration, the trade in corn was afflicted with regulations, which varied according to the supposed necessities of the State. The decrees from 1661 to 1669 are wanting, but from the latter period to Colbert's death in 1683, there were 29 edicts published, regulating the trade. During this period of 14 years, exportation was forbidden during 56 months. Eight edicts allowed grain to be exported on paying a duty of 22 livres the muid; five on paying the half or quarter of this duty; and eight without any duty at all; eight were absolutely prohibitive. The permissions to export were only for three or six months, and very rarely for a year. Boisguillebert, Forbonnais, and the Economists of the eighteenth century, have so completely pointed out the mischief of this system, that they have left nothing to be added. By these mischievous interferences agriculture was ruined during Colbert's administration, the farmers were reduced to the lowest state of misery. Numerous reports were addressed to Colbert by the intendants of the provinces, detailing the misery of the cultivators of the soil. In 1675, the Duc de Lesdiguières, governor of Dauphiné, wrote to Colbert, that he could no longer delay informing him of the misery to which the province was reduced. The greater part of the inhabitants had lived, during the winter, on bread made from acorns, and nuts, and that they were then eating grass and the sprouts of trees. In 1681, Colbert made a report to the king, saying that all the letters from the provinces, from the intendants, the receivers-general, the bishops and others, all spoke of the intense misery of the people. Vanban's celebrated description of the misery of France cannot be quoted here, because it refers to a later period, but there can be little doubt but that it was the result of Colbert's system.

In 1604, a Fleming, named Girard Leroi, who had served in the Dutch navy, formed the project of a Company, which was favourably received by Henry IV., and received letters patent from Louis XIII. in 1611, under the title of the Company of the Indies. In 1626, a new Company called that of St. Christopher was formed, in 1628, that of Canada, or New France, in 1637, Girard's Company changed its name to that of Madagascar, and in 1642, to that of the East. In 1660, the China Company was founded, but all these enterprises were uniformly unsuccessful. Colbert, not disheartened with these failures, tried to organise them on a better footing. The tonnage duty on foreign vessels had imparted activity to the French dockyards. The prodigious success of the Dutch companies inspired Colbert with the hopes of rivalling them, if only the causes of the former failures were removed. On the 21st of May,

1664, an edict was issued, constituting a new West India Company, detailing the faults that had ruined the previous ones. An existing company, called that *De la terre ferme d'Amérique*, was reorganized, and endowed with the exclusive privilege of trading to the West Indies, Cayenne, the Continent between the Amazon and the Orinoco, Canada, Arcadia, Newfoundland, the islands and other lands down to Florida, and all Africa between Cape de Verd to the Cape of Good Hope. The company was endowed with the most ample privileges and exemptions. In the same year an East India Company was formed to rival the Dutch. A member of the Académie, Charpentier, was ordered to explain to the public the causes of the failure of the preceding ones, and to shew that foreign nations had failed at first. The Dutch Company then realized from 40 to 60 per cent. per annum. Charpentier said that six millions would be enough to equip 14 vessels of 800 to 1400 tons, of which the king would subscribe for a tenth, and many great landowners were ready to take three millions of stock.

Royal letters to the syndics, mayors, and aldermen of the great towns, accompanied this appeal to the public. To take shares was the best way to win favour at court. Some of the financiers, fined by the Chamber of Justice, were allowed to commute their fines into shares. It was soon seen that the proposed capital was insufficient, and that fifteen millions were required to establish the Company on a durable basis. The efforts to procure subscriptions were redoubled. The Chancellor Seguier, by order of the king, ordered the whole Chamber of Justice to take shares. Those who were slow were frowned upon.

By dint of these exertions the company was at length formed, with a capital of fifteen millions, of which the king subscribed for three, without interest. It was endowed with a monopoly of all the trade to the Indies, the Eastern and the Southern Seas, for fifty years. It was allowed to hold in full sovereignty for ever, all the lands, towns, and islands conquered from the enemy and the natives. All salt was to be furnished to the State at cost price, and it was to receive a bounty of 50 sous a ton on all merchandize exported from France, and half that on imports, besides many other privileges.

All these magnificent powers were frustrated by the misconduct of the Company's servants. Colonists did not come forward. The king paid four millions; but private persons failed in their engagements. Colbert exerted himself to support his favourite scheme; but public bodies were greatly in arrear. In 1670, the Dutch Ambassador told Colbert that the Dutch Company paid 40 per cent. This was a cruel mortification to Colbert, for his own was in *extremis*.

The West Indian Company was no better off. Colbert was obliged to advise them to moderate the activity of the Jesuits. But all his efforts failed. In 1671, he made an effort to pay the shareholders 5 per cent. But it was soon clear that failure was inevitable. In ten years it lost 3,523,000 livres. On its liquidation the king bought up all its establishments for 1,300,000 livres.

All the Companies established by Colbert came

to a similar disastrous end. There were besides those mentioned, the Companies of Senegal, the North, the Levant, and the Pyrenees.

Colbert, without actually intending to discourage agriculture, as has sometimes been erroneously said, regarded manufactures and commerce as the true sources of wealth to a country, because they were supposed to bring in gold and silver, which were the only wealth according to the mercantile system.

We have now come to that part of Colbert's system which is more especially distinguished by the name *il Colbertismo*, and which is more familiarly called by the name of Protection to Native Industry. The fundamental principles of this system are to stimulate national industry, by forbidding the import from foreign countries of all manufactures which can be produced at home, and next, to secure the monopoly of the home market to the native growers. The great engine by which these results were to be produced, was a proper regulation of tariffs.

In 1655, notwithstanding Anne of Austria's aversion for the Protector, she had been advised by Mazarin to conclude a treaty of Commerce with England, providing for entire freedom of trade between the two countries. But this state of matters did not last very long. France wanted to create a commercial navy, and in 1659, she imposed a duty of fifty sous a ton on all foreign vessels. England also wanted to strike a blow at the Dutch, and she enacted her famous Navigation Act, which still further embittered the relations between the two countries. The great blow, however, was struck by the tariffs of 1664 and 1667, which formally inaugurated the disastrous era of the war of tariffs, which soon degenerated into a war of blood.

The effect of these two tariffs, by which the duties on foreign manufactures were in many cases quintupled, was to prohibit the great majority of English and Dutch goods from entering France. The consequences were very simple. It was a game that two could play at; and though the result of modern investigation has shown that it would be much wiser for the second party *not* to play at it, yet in that age, when passion was supreme, retaliation was, of course, swift and sure. The outcry in England and Holland was immense, and all representations being in vain, England greatly raised her duties on French produce, and Holland excluded it altogether. But a very extraordinary result ensued. The duties laid on French wines and brandy for the purpose of destroying their use, had only the effect of stimulating it in England. During twelve months preceding the tariff of 1664, the entry of French wines into the port of London had been 6,828 tuns, and so little brandy, that it was not counted. After the duty was laid on, the entry in two years was 17,000 tuns of wine and 3,000 of brandy. Between 1672 and 1674, the quantity of wine rose to 22,500 tuns; and in a short time the export of brandy rose to 5,000 tuns. These results, so contrary to what were intended and expected, only confirmed Colbert in his policy. Holland was greatly more dependent on the commerce with France than England was. The commotion excited in that country was therefore proportionably more severe; but Colbert only adhered the more firmly to his tariff, because the

express intention of it was to ruin the commerce of the Dutch; and the louder they cried, the more surely it proved that it had that effect. We need not pursue the subject further. The war of 1672 was the direct consequence of these hostile tariffs, and at the peace of Nimeguen, in 1678, Louis XIV. consented to abrogate the tariff of 1667, and return to that of 1664, to the profound chagrin of Colbert.

He then applied himself to develop the internal commerce of the country. As it could not flourish while the great towns and the communes were overwhelmed with debts contracted during the preceding wars, commissioners were appointed to investigate the communal debts, which had been chiefly formed since 1647, in consequence of the poverty of the king's exchequer, by Mazarin, who seized all the octroi duties, and allowed the magistrates to levy fresh ones. The communes preferred to raise the sum by loan, and pay it over at once, and raise the interest by taxes, which were in many cases illegal. In 1663, the king remitted half the octroi duties, and annulled the leases by which they were held at a low rate, to the great relief of the communes. Richelieu had endeavoured to encourage maritime commerce by declaring that engaging in it should not derogate from nobility. Colbert, still further to promote it, ennobled several merchants, and enacted that the nobles might engage in any species of commerce without losing their rank.

Colbert's system of meddling in commerce was carried to a length which seems absolutely ludicrous. The length, breadth, and quality of each article was rigorously prescribed by law. These interferences with industry excited the warmest opposition, and manufacturers and workmen refused to work under such conditions. The more they cried out the firmer Colbert was in ordering the laws to be rigorously executed. The intendant of Tours, in order to curry favor with Colbert, ordered that all the pieces of stuff which did not comply with the regulations, should be exposed on a post with the names of the culprits. Colbert was delighted at the idea, and immediately issued an edict, that for the first offence all such stuffs should be exposed on a post nine feet high, with the names of the merchant and workman, for 48 hours, and then cut up and burnt. For the second offence, the merchant and workman should be publicly reprimanded by the guild to which they belonged, and for the third offence be put in the stocks, with a sample of the confiscated stuff, for two hours.

Forbonnais says that the people thought that this strange edict was translated from the Japanese, though such an idea was probably a libel upon that people. The opposition and hatred to these absurd follies lasted all his life, and had a great effect in rendering his efforts for the encouragement of manufactures null, by frightening people from working. Another specimen of this extraordinary legislation may be given. The bye-laws of Amiens ordered that if any thread should be found to be damped for the purpose of fraudulently increasing its weight, it should be burnt! It would have been more sensible to have it dried!

Such folly as this naturally excited the indignation of men of business. One day Colbert summoned the principal merchants of Paris to

confer about commerce. No one dared to speak. "Gentlemen, are you dumb?" said he. "No, my Lord," said Hazar of Orleans; "but we are all equally afraid of offending your greatness, if we say a word to displease you." "Speak freely," said the Minister; "he who speaks most freely is the best servant to the king, and the best friend to me." Hazar replied, "My Lord, since you desire it, and you promise to take in good part what we have the honour to say to you, I will tell you frankly, that when you became minister, you found the coach upset on one side, and since you have been so, you have raised it up, only to upset it on the other." Colbert, in a rage, asked if any one else had anything to say, but no one dared say a word.

Colbert shared the error of his times, and indeed which prevailed to a very much later time, and it appears in Adam Smith, that it was of very great importance to stimulate the population of the country. Premiums were given for numerous families. Commoners were exempted from tailles and public taxes, by edicts in 1666 and 1667: and noblemen who had ten children, received pensions of 1,000 livres, and those who had twelve, received 2,000 livres. Those who married under twenty were exempted from taxes for five years; those who married under twenty-one were exempted for four years. These injudicious measures were, however, repealed in 1683. He tried sumptuary laws too, but was obliged to abandon them.

The venality of public offices had been allowed from a very early period, and an immense number of families were interested in the abuse. St. Louis forbade the office of judge to be sold, and Louis le Hutin and Philip le Long farmed them out. Charles V., Charles VII., Louis XI., and Charles VIII., ordered that, on a vacancy, the other officers of the tribunal should designate two or three of the most able, among whom the king should choose the most worthy. Louis XII. was obliged to sell them, to pay the debts contracted by his predecessors in the Italian wars, intending to refund the money when possible.

There have not been wanting writers of great eminence to defend the venality of offices on principle. But Colbert was very much opposed to it, and tried to abolish it. In 1664, he paid off the holders of a great number of useless offices, and suppressed 215 secretariats to the king. He ascertained that the number of Officers of Justice and Finance in the kingdom was 45,780.

In 1664, with great sagacity, he organized a warehouse system, which was not done in England till 1803. The provinces which accepted his tariff, were separated by a double line of custom-houses from those which did not. In them eleven great warehouses were erected, in which merchants might store their goods. In 1670, all the seaports were allowed to have the benefit of similar buildings, where merchants might keep their goods till they sold them in France, or exported them. To encourage transport, all duties were taken off goods passing from Flanders to Spain.

In 1671, England opened negotiations for a treaty of commerce, and asked, among other things, to stipulate that the tariff should be restored to its state in 1664; but Colbert replied that such a stipulation was inadmissible, and that the king

would never give up his right to regulate the duties in his own country as he pleased.

We have seen the happy state into which the financial genius of Colbert had brought the country during the eleven years from 1661 to 1672. The war unfortunately ruined all. Fresh taxes had to be laid on, and Colbert was obliged to resort to the abominable practice of raising the prices of all the public offices, and to create *rentes* to the amount of 900,000 livres. To pay the interest on these, taxes were levied on all the houses built in Paris beyond the limits of 1638, and on stalls in the public markets, as well as other necessities of the poor. This created a great fury against Colbert. Multitudes of offices were created, interfering with trade in every way. But these means were all insufficient. Louvois was strongly in favour of loans, and against taxes, because they made the war unpopular. For that very reason Colbert was in favour of taxes. In the end, recourse was obliged to be had to both, and the effect was, that the whole weight of the odium fell on Colbert. Stamp duties were imposed on paper, which gave rise to many alarming tumults and insurrections in different provinces.

Up till 1671, Colbert's relations with the king seem to have been friendly, but at that time the influence of Louvois, who was anxious to engage Louis in war, seems to have predominated; and in April, 1671, some great rupture took place between the king and Colbert, the details of which we are not exactly informed, but it appears that Colbert contradicted the king somewhat brusquely. In 1672, the king said one day to him that he must have sixty millions more to carry on the war. Colbert, in alarm, hastily replied that he could not furnish such a sum. The king told him to look to it, for if he would not, there were others who would. From this time his manner visibly changed to an air of settled melancholy, and he was continually persecuted with false charges and insults by the war party, who wished to drive him to resign.

In 1680, he accompanied the king on a journey to the Low Countries, and was seized with a malignant fever, of which an English physician cured him by quinine, which brought that medicine into fashion.

Louvois paid great attention to the expenses of his department, examining the smallest accounts. Thinking that he had discovered that Colbert had improperly passed some accounts, he reported it to the king. When Colbert gave in his accounts, the king was extremely rude to him, saying at last that there was roguery in his accounts. Colbert replied that he hoped that was not intended to refer to him. The king said, no; but that he must pay more attention, and that if he wanted to know what economy was, he should go to Flanders, and see how little the fortifications of the captured towns had cost. Colbert was thunderstruck at this insult, and immediately fell ill. The king sent a gentleman to see him, and wrote him a letter. Colbert pretended to be asleep, and refused to see the messenger or read the letter, saying that he wished to hear no more of the king. His last words were, speaking of the king, "If I had done for God what I have done for that man, I should have been saved twice over, and now I don't know what will become of me."

Colbert died on the 6th September, 1683, and

such was the hatred of the people towards him, that his body was obliged to be carried under a strong escort, by night, to be buried in the Church of St. Eustache. Torrents of libels, satires, and epigrams upon his harshness and avarice, were circulated everywhere. Such was the gratitude of the people to the man who had raised France to be the first power in Europe.

Notice sur la vie et l'administration de Colbert. By P. Clement. Paris, 1853.

Etudes sur Colbert. By J. P. Joublean. Paris, 1857.

Both these works were crowned by the Academy of Moral and Political Sciences.

COLEBROOKE, HENRY THOMAS, one of the most distinguished Oriental scholars that England has produced, was born in 1765, the third son of Sir George Colebrooke, Bart., an East India Director. In 1782, he obtained a writership in India, and was placed in the Financial Department at Calcutta. He was afterwards transferred to various country departments, and was appointed, along with Mr. Lambert, a merchant, to draw up a report on the resources of Bengal. Mr. Colebrooke then began to study Sanskrit, and translated several legal treatises from that language for Sir William Jones. On the foundation of the College of Fort William, he was appointed Professor of Sanskrit. He was afterwards promoted to the Chief Judgeship of some of the Indian Courts, was President of the Board of Revenue, and a member of the Supreme Council of Bengal. Mr. Colebrooke's publications regarding the Sanskrit literature, which made him so famous, are of course beyond the scope of our present notice. He held, along with his two brothers, the patent place of Chirographer to the Court of Common Pleas. He died on the 10th of March, 1837, in London.

Remarks on the Agriculture and Commerce of Bengal. 1794.

Remarks on the Husbandry and Internal Commerce of Bengal. 1806.

On the Import of Colonial Corn. London, 1818.

COLLECTION des PRINCIPAUX ECONOMISTES. This is an excellent collection of the works of the principal Economists from Vauban to Ricardo, published by Messrs. Guillaumin & Co., of Paris. The works of each author are preceded by a biographical notice, and accompanied with notes and commentaries. The collection comprises 15 volumes, published from 1846 to 1848.

Vol. I. *Economistes Financiers du XVIII^e siècle.*

Vauban; *Projet d'une dîme Royale.*

Boisguillebert; *Détail de la France—Factum de France, &c.*

Jean Law; *Œuvres complètes.*

Mélon; *Essai sur le Commerce.*

Dutot; *Réflexions Politiques sur les Finances et le Commerce.* Edited by M. Eugène Daire.

Vol. II. *Physiocrates.*

This volume, also edited by M. Eugène Daire, contains the works of the principal of those writers who were called the *Economistes*, or *Physiocrates*. The works included in it are those of Quesnay, Dupont de Nemours, Mercier de la Rivière, l'Abbé Baudeau, and Le Trosne. In an introduction, M. Daire explains the nature of the Physiocrate doctrine.

Vol. III. and IV. *Œuvres de Turgot.*

This volume is edited by MM. Eugène Daire and H. Dussard.

Vol. V. and VI. *Recherches sur la nature et les causes de la Richesse des Nations, par Adam Smith.*

This translation of Adam Smith is by Garnier, and includes the notes of the translator, McCulloch, Malthus, James Mill, Ricardo, Sismondi, Storch, and J. B. Say. It is edited by M. Blanqui, who has revised it, written a biographical notice, and added notes of his own.

Vol. VII. *Essai sur le principe de Population, par Malthus.*

Translated by MM. P. and G. Prevost, of Geneva, with an Introduction by Rossi, and a biographical notice by Ch. Comte, edited with additional notes by M. Joseph Garnier.

Vol. VIII. *Principes d'économie politique, considérés sous le rapport de leur application pratique.* Containing also a translation of Malthus's definitions in Political Economy, with some hitherto unpublished remarks of J. B. Say.

Vol. IX. *Traité d'économie politique : ou simple exposition de la manière dont se forment, se distribuent, et se consomment les richesses.* By J. B. Say.

Vol. X. and XI. *Cours complet d'économie politique pratique; ouvrage destiné à mettre sous les yeux des hommes d'état, des propriétaires, fondateurs et des capitalistes, des savants, des agriculteurs, des manufacturiers, des négociants, et en général de tous les citoyens, l'économie des sociétés.* By J. B. Say.

Vol. XII. *Œuvres diverses de J. B. Say.*

Vol. XIII. *Œuvres complètes de Ricardo.*

Vol. XIV. *Mélanges; DAVID HUME; Essais sur le commerce, le luxe, l'argent, les impôts, le crédit public, sur la balance du commerce, la jalousie commerciale, la population des nations anciennes—V. DE FORBONNAIS; Principes économiques—CONDILLAC; le commerce et le gouvernement—CONDORCET; lettre d'un laboureur de Picardie à M. N(echer).—Réflexions sur l'esclavage des nègres—Réflexions sur la justice criminelle—De l'influence de la révolution d'Amérique sur l'Europe—De l'impôt progressif.—LAVOISIER; De la richesse territoriale du royaume de France.—FRANKLIN; La science de bonhomme Richard.*

Vol. XV. *Mélanges; Necker, sur la législation et le commerce des grains.—L'Abbé Galiani; Dialogues sur le commerce des blés, avec la réfutation de l'Abbé Morellet.—MONTYON; Quelle influence ont des diverses espèces d'impôt sur la moralité, l'activité, et l'industrie des peuples?—BENTHAM; Défense de l'usure.*

COLLIER, W. R.

Remarks on the Protective System. Andwer, U. S., 1832.

COLLIGNON, CHARLES.—A French Engineer, Chief of the Office of Roads and Bridges.

Des concours des canaux et des chemins de fer. Paris, 1845.

COLLIN, JONAS.

For Historie ay Statistik iscen Fadrelandets. Kjobenhavn, 1822.

CALLOT, VICTOR. General.

Mémoires sur la réorganisation de la Colonie de

Saint Dominique. Précédés de quelques vues générales sur un système de colonisation. Paris, 1800.

COLMAN, HENRY. Member of the Royal Agricultural Society.

The Agriculture and Rural Economy of France, Belgium, Holland, and Switzerland, from personal observation. London, 1848.

Four Reports on the Agriculture of Massachusetts. Boston, 1838-41.

COLMAN.

Motion très intéressante sur la Finance. Paris, 1790.

COLMEIRO, DON MANUEL. Professor of Political Economy and Jurisprudence at Madrid, was born in 1818 at Santiago, in Galicia. He was educated at the University of his native town, and studied law and political economy. He taught political economy for two years there. In 1847, after a competition, he obtained his appointment in the University of Madrid.

Derecho administrativo Español.

Memoria sobre el modo mas acertado de remediar los malos inherentes a la extrema subdivision de la propiedad territorial en Galicia. Santiago, 1840.

Tratado elemental de economia politica eclectica. Madrid, 1845.

He has also translated the Political Economy of Droz.

COLMONT, ACHILLE DE.

Histoire des expositions des produits de l'industrie Française. Paris, 1855.

COLMONT, SAINT JULLE DE. Born in 1792, formerly Secretary-General of Finance, has published many articles in the *Journal des Economistes*, and together with M. Dumas—

Rapport fait à la commission instituée par arrêté du ministre des finances en date de 14 Juillet, 1838, pour étudier les questions relatives à la refonte des monnaies de cuivre et de billon. Paris, 1840.

COLONISING.

A plain investigation of that subject, with a legislative, political, and commercial view of our Colonies. London, 1774.

COLONY. See MERCANTILE SYSTEM.

COMBE, CHARLES.

Index nummorum omnium imperatorum, Augustorum et Caesarum qui ex ære magni moduli signabantur. London, 1773.

Nummorum veterum, populorum et urbium qui in museo G. Hunter, asservantur descriptio. Londini, 1782.

COMBE, GEORGE, born October 21, 1788, at Edinburgh, where he became a Writer to the Signet in 1812. He early became a disciple of the doctrines of phrenology propounded by Gall and Spurzheim, and devoted much labour and time in propagating their views, which led him into several controversies. During 1838, 1839, and 1840, he resided in the United States, where he was led to pay much attention to the pheno-

mena of the monetary convulsions which agitated the Union in these years. Mr. Combe published several works which have become very popular, but which we cannot notice here. In 1833, he married a daughter of Mrs Siddons. In 1836, he was a candidate for the Chair of Logic and Metaphysics in the University of Edinburgh, which, however, Sir William Hamilton obtained. The title of Mr. Combe to be reckoned among Economical writers, is founded upon some articles he wrote in the *Scotsman* newspaper, during the Currency crisis of 1855, which were reprinted in the *Times*, and attracted great attention, and were republished in a pamphlet, which in a very short space of time had the extraordinary fortune to get through about eleven editions. Mr. Combe died in 1859.

The Currency Question; considered in relation to the Act of the 7th and 8th Vict., c 32, commonly called The Bank Restriction Act. London, 1856.

Refutation Refuted; a reply in answer to pamphlets put forth in answer to the Currency Question considered. London, 1856.

COMBE, WILLIAM.

An Historical and Chronological Deduction of the Origin of Commerce. London, 1787.

COMBES, ANACHARSIS and HIPPOLYTE.

Les paysans français considérés sous le rapport historique, économique, agricole, médical et administratif. Paris, 1853.

La propriété intellectuelle au point de vue de la morale et du progrès. Paris, 1857.

COMMERCE. See ECONOMY, POLITICAL.

COMMON SENSE.

The cause of the present threatened famine traced to its real source; viz., an actual depreciation of our circulating medium, occasioned by the paper currency. London, 1800.

COMMUNISM. See SOCIALISM.

COMPANIES, in Joint-Stock unnecessary and inconvenient. *Free Trade to India in a regulated Company.* London, 1691.

COMPANY. See PARTNERSHIP.

COMPENDIUM, A, of the Laws for regulating the importation, exportation, and consumption of foreign corn from the year 1660, and a series of accounts from the date of the earliest official records, shewing the operation of the several statutes and the average price of corn. London, 1826.

COMPETITION, See SOCIALISM.

COMSTOCK, JOHN L.

A History of the Precious Metals from the earliest periods to the present time, with directions for testing their purity. Hartford, U. S., 1849.

COMTE, AUGUSTE, who has published a system which he calls the "Positive Philosophy," was born at Montpellier, the 12th January, 1795. His family, he tells us, were extremely catholic

and royalist, and placed him at one of Napoleon's Lyceums, where great efforts were made to restore the ancient theologico-metaphysical system. He was scarcely fourteen when he revolted against the system, and resolved to commence a universal regeneration, both political and philosophical. He entered the *Ecole Polytechnique* in 1814, and the mathematical studies of the place strongly confirmed this tendency; and he made up his mind that the same spirit of philosophizing must be applied to vital and social questions as was already applied to inorganic substances, and that the education which stopped at the latter was imperfect. The whole system of this philosophy he called the Encyclopædic Hierarchy.

At this period St. Simon was in the height of his fame, and attracted most of the ardent young speculators of France. Comte was the youngest, and not the least distinguished of the number. In 1820, he published his views in the *Organisateur*. He afterwards separated from St. Simon, and in the preface to the 6th volume of his *Cours de Philosophie Positive*, speaks of him in very disparaging terms, saying that he was very ingenious, but very superficial—more active than speculative—not philosophical by nature, and only actuated by an immense personal ambition. Comte speaks of him as having exercised a very deleterious influence over him and his philosophical studies.

In 1826, he was seized with an attack of mental aberration, brought on by overwork and anxiety. He was sent for cure to the private asylum of Esquirol, who was a famous mad-doctor, and through his treatment, Comte's insanity had nearly proved permanent. After the doctor had pronounced it incurable, the strength of his constitution, soothed by domestic affection, threw it off, and in the following year he was quite recovered. He then worked at his philosophical speculations, and, in 1830, the first volume of his *Cours de Philosophie Positive* was published.

Comte not having any private fortune, was obliged to do something for his living, and in 1816 began to give lessons in mathematics, and this was his sole means of subsistence during his life. In 1832, he was appointed, in the lowest position, to a professorship at the *Ecole Polytechnique*, where, according to his own account, the success of his teaching and his reputation as a philosopher, excited the jealousy of his colleagues. In 1836, he was appointed to occupy, *ad interim*, the principal mathematical chair. In 1840, this chair was vacant, and Comte naturally expected to be appointed to it, but owing to the influence of Arago, Sturm, the inventor of the famous theorem, got it. This excited Comte's enmity against Arago, and he seems to have got on badly with his colleagues; and in 1852, his refusal to take the oaths to Napoleon III., deprived him of his place, and at 57 he was turned adrift on the world, and lived in great penury, supported by the contributions of his admirers and friends in England and France. He died in Paris in September, 1857.

Comte denominates his Philosophy "Positive," because he says that every science has passed through three stages of opinion; 1st, the theological; 2ndly, the metaphysical; 3rdly, the positive. The first, when men in their ignorance and incapacity to account for phenomena, referred

them on all occasions to the direct interposition of the Deity. The next stage was, when having abandoned this, they tried to speculate on the *causes* of phenomena, and attributed them to certain mysterious agencies. Comte maintains that this is beyond the reach of human faculties, and that all they can do is to discover the *laws* of the phenomena. As an example of the metaphysical state of a science, he instances the two prevalent theories of light—the emission and the wave theory. Both of these he condemns as unphilosophical, and considers the researches into the laws of heat as the true model of scientific investigation. This system of inquiring only into the *laws* of phenomena, he denominates the Positive System, to which all philosophy will, as he asserts, finally confine itself.

Now, with respect to what he says about the theological phase of opinion, there is much truth. But Bacon said the same very long before. He tells us that Providence acts through secondary laws, and these are the only ones which the philosopher has to investigate. So Pope said long ago, that

"The Universal Cause

Acts not by partial, but by general laws."

So that this part of Comte's doctrine was not very novel. In the next place, men of science, long before Comte's day, were perfectly agreed that the true method of procedure in every science is to begin by ascertaining the *laws of the phenomena*. Newton laid this down in his *Optics*, and the rule was perfectly well understood and acted on by all physicists long before Comte. But with respect to Comte's next doctrine, that philosophers must stop there, and never seek to investigate the *causes* of these laws, that is a limitation of the powers of the human mind that no physicist will ever submit to. In fact, as soon as *laws* are ascertained, they become *phenomena*, and by collecting a vast body of these laws together, the human mind naturally and irresistibly endeavours to discover, by the same method of philosophy, if these phenomena are not subject to the same general laws, as well as the first order of phenomena. They will certainly try to discover if there are not certain laws of laws. When we once seek for laws at all, it is not more metaphysical to seek for the law of a law, than for the law of a phenomenon. In fact, Comte's system would go to forbid us to inquire into the *reason* of anything at all—a restraint to which the human mind will never submit.

Comte's great doctrine is, that there is a certain progressive order in science, and that the social science must be investigated by methods strictly analogous to those pursued in physical science, and that the study of the latter must precede the former.

Some of his admirers seem to think that this is a totally novel idea on the part of Comte. Thus, Mr. G. H. Lewes, in his work on Comte's Philosophy, published in Bohn's series, p. 10, says:—"Let me now call attention to Comte's initial conceptions; and first, to the luminous conception of all the sciences—physical and social—as branches of one science, to be investigated on one and the same method.

"To say that science is one, and that the method should be one, may, to the hasty reader, seem more like a truism than a discovery, but on inquiry he will find that before Comte—although

a general idea of the connection of the physical sciences was prevalent—yet, to judge from Mrs. Somerville's work, or Herschell's *Discourse*, it was neither very precise or very profound. *No one had thought of a social science, issuing from the physical sciences, and investigated on the same method.* In fact, to talk of moral questions being reduced to a positive science, would even now be generally regarded as absurd!!"

After reading this astounding statement, we can only ask, Did Mr. Lewes ever read Bacon? Why, the very purpose of the *Novum Organum* is, to inculcate that physical science is the basis of moral science; and throughout all Bacon's other works, his constant assertion is, that there is a *Continuity* of the sciences; and his complaint is, that they are all barren and useless, because they are torn away from Natural Philosophy, their nursing mother. For proof of this, we have only to refer to the articles *AXIOMS AND DEFINITIONS*, and *CONTINUITY*, *LAW* or, in this Dictionary, when it will at once be seen how preposterous a notion it is that Comte was the originator of this idea, and many illustrious men had preached the same doctrine since Bacon's day, but, unfortunately, they did little more than preach it.

Dismissing then this untenable claim set up for Comte, we now come to his own work, in which there is much to be approved of.

Comte's fundamental doctrine as expressed above, which is in entire accordance with Bacon's great doctrine of the Continuity of the Sciences, is that there is a certain due and proper order in which only the sciences can be properly understood. First of all, as the basis of all human knowledge, Mathematics. Then the Inorganic sciences, Astronomy, Physics, and Chemistry. And next the organic sciences, Physiology, the study of the individual, and last of all Social Science, or the individuals in Society, which he calls also Social Physics. Comte strongly urges the necessity of studying the Anterior sciences in due and proper order, and that each one should be understood before proceeding to the next; and especially, those who study Social Physics should be well acquainted with Astronomy, Physics, Chemistry, and Physiology, before they attempt it.

To this doctrine we give our entire assent, so far as regards the Science with which this work is concerned—Political Economy. Comte says that the errors of many Chemists are owing to their want of acquaintance with Mathematics. We say that most of the fundamental defects of our Economists are owing to their palpable want of acquaintance with Physical Science.

Among several excellent parts of his introductory chapter, we may observe that he properly calls attention to the difference between *precision* and *certainty* in science; whence he says a dangerous prejudice has sprung up, that because the *precision* of different sciences is very unequal, that therefore their *certainty* is so too. This tends much to discourage the study of the most difficult. Precision and certainty are perfectly distinct. An absurd proposition may be very precise, as for instance, that the angles of a triangle are equal to three right angles. On the other hand a certain proposition may not be precise, as that a man will die. Hence, although

the different sciences may vary in precision, that does not affect their certainty.

This observation applies very forcibly to Political Economy. Many persons are apt to despise it, and think that there is nothing in it, because it does not bring out its results with the same numerical precision as those of Mathematics. That, however, is a very grievous mistake. The laws of Political Economy are quite as *certain* as those of Physical Science, though it may not be possible to reduce them into formulæ of the same numerical *precision*.

Comte says that there is no hope of a really rational education until the plan laid out by him is pursued systematically in instructing youth. To this we to a great extent agree.

It is somewhat surprising, however, that when Comte comes to Political Economy, which one would think is specially adapted to shew the truth of his method, he speaks of it with the greatest contempt, and does not admit it to be a science at all. Except Adam Smith, whom he lauds for not making it a science, he treats the Economists with unbounded disdain.

Now, we adopt Bacon and Comte's doctrine to the full. Physical science is the true basis of moral science. Political Economy is, to all intents and purposes, a physical science. We have endeavoured to show that mathematical ideas are capable of being applied to it, to an extent that has never yet been thought of.

Thus, we have shewn that the theory of Credit can only be explained by the great modern algebraical doctrine of the separation of the signs of position and operation.—(CREDIT.)

It is this great principle of the continuity of science that can alone raise Political Economy to rank with the physical sciences.

Comte's works relating to our subject, are—*Cours de Philosophie Positive*. Paris, 1830-42.

This work has been admirably condensed by Miss Harriet Martineau, in two volumes.

Discours sur l'esprit positif. Paris, 1844.

Discours sur l'ensemble de positivisme. Paris, 1846.

Système de politique positive, ou traité de sociologie, instituant la religion de l'humanité. Paris, 1851-3.

COMTE, FRANÇOIS CHARLES LOUIS, a very eminent French publicist, was born on the 25th August, 1782, at St. Eminie, a village in the department of Lezère. He became a member of the Paris bar. He had voted against the Empire being conferred on Napoleon. In 1814, he published *Le Censeur*, to resist the reactionary designs of the Bourbons. He was shortly afterwards joined by M. Charles Dunoyer, and these two writers maintained constitutional doctrines against absolutism for six years. When Napoleon landed at Cannes, M. Comte published a pamphlet shewing that constitutional government was impossible under a military chief, and especially under Napoleon. The editors of the *Censeur* were, nevertheless, accused by a royalist paper, of being in a conspiracy to bring back the Emperor. They brought an action for libel against the paper. The case was set down for the 19th of March, when Napoleon was already at Fontainebleau. The judges were placed in rather a delicate position, between the existing and the *pau*

post futurum governments. The defendant wished the case postponed; but to this the plaintiffs demurred, and when the case came on, the Emperor was actually on the throne. They insisted on the case going on, notwithstanding its now being without an object. We are not told how judgment went. The *Censeur* was seized by the Imperial Government, and fared no better under the second restoration, so that its publication was suspended during two years. In the mean time the editors applied themselves to Political Economy. M. Comte took lessons from J. B. Say, and married his daughter.

This study had much influence on the future views of the *Censeur*, which, on its reappearance, took the name of the *Censeur Européen*. It became an ardent advocate of economical reform and free trade. But they had the misfortune to come into collision with the Censorship, and were sentenced to a fine of 2,000 francs, and two months imprisonment. M. Comte considering the sentence illegal, took refuge in Switzerland, and, in 1820, a Chair of Jurisprudence was offered him at Lausanne, which he filled with great success till 1823. The French Government then demanded his expulsion, but the Canton de Vaud stoutly resisted such an order. M. Comte, however, not to be a cause of embarrassment to the hospitable government, retired of his own accord to England, where he became an intimate friend of Bentham.

When the term which satisfied the sentence had expired, he returned to France, and published his *Traité de Législation*, to which the Academy awarded the great Montyon prize in 1828.

This work became a very favourite one with Frederick Bastiat.

After the Revolution of July, M. Comte was elected to the Chamber of Deputies by the department of the Sarthe, and was appointed King's Advocate in the Court of the Seine. When the Academy of Moral and Political Sciences was restored, he was appointed a member, and shortly after, Perpetual Secretary. In 1834, he published his *Treatise on Property*, which obtained a very high reputation. In his capacity of Perpetual Secretary, he pronounced the *Éloges* of Garat and Malthus. He died 13th April, 1837.

Le Censeur, ou examen des actes et des ouvrages qui tendent à détruire ou à consolider la constitution de l'Etat. Paris, 1814-15.

Le Censeur Européen, ou examen de diverses questions de droit public et de divers ouvrages littéraires et scientifiques, considérés spécialement avec les progrès de la civilisation. Par MM. Comte et Dunoyer. Paris, 1817-1819.

This contains a considerable number of papers on economical subjects.

Des garanties offertes aux capitaux et aux autres genres de propriété par les procédés de Chambres Législatives, dans les entreprises industrielles, et particulièrement dans la formation des canaux, et de l'influence qui peut avoir un canal du Havre à Paris, sur la prospérité des villes commerciales de France.

Traité de législation, ou exposition des lois générales suivant lesquelles les peuples prospèrent, dépérissent, ou restent stationnaires. Paris, 1827.

Traité de la Propriété. Paris, 1834.

CONBREUX, GUILLAUME.

Décameron Numismatique. 1844.

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Description complète et raisonnée des monnaies de la deuxième race royale de France. Paris, 1837.

Catalogue raisonnée des monnaies nationales de France. Paris, 1839-41.

CONCINA, GIACOMO de.

Sul commercio dei Romani in Aquileia. Alvisopoli, 1810.

CONDER, JAMES.

An arrangement of provincial coins, tokens, and medals issued in Great Britain, Ireland, and the Colonies, within the last 30 years. Ipswich, 1798-99.

CONDILLAC, ETIENNE BONNOT DE,

Abbé de Muraux, who, La Harpe says, was the founder of sound Metaphysics in France, was born at Genoa, the 13th September, 1714. He was the younger brother of the Abbé de Mably. There are few persons who attained such eminence, whose lives were so utterly devoid of events. His biographers tell us nothing deserving the name of an incident about him, except that having won a great reputation by his first publications, he was appointed preceptor to the Prince of Parma, Louis XV.'s grandson, for whom he wrote most of his subsequent works. In 1768, he was appointed a member of the French Academy in the room of the Abbé l'Olivet, and after having delivered the usual preliminary discourse, he never entered it again. In 1777, he was requested to write an elementary work on Logic, for the schools in Poland, and he died 3rd August, 1780, at his place of Flux, near Bangenci, where he lived in retirement all his life. It would be obviously out of place here to give any account of Condillac's metaphysical system, which attained great popularity in his day. He professed to be a follower chiefly of Locke, though he carried Locke's views to an extreme; so that his school is called by the name of the *Ultra-sensational*, because he refers the acquisition of all knowledge exclusively to the senses. There is one part, however, of Locke's and Condillac's philosophy which we must mention, as it is very pertinent to our present subject.

Bacon dwelt with great earnestness, in his *Novum Organum*, and elsewhere, on the extreme importance of forming true conceptions—*notiones*. Locke devotes a whole Book, the III., to the discussion of words, or language, its use and abuse. He speaks with great severity of the confusion of language so prevalent in controversies. He says, (B. III, c. x, § 5),—"It is hard to find a discourse written upon any subject, especially of controversy, wherein one shall not observe, if he read with attention, the same words (and those commonly the most material in the discourse, and upon which the arguments turn), used sometimes for one collection of simple ideas, and sometimes for another, which is a perfect abuse of language. Words being intended for signs of my ideas, to make them known to others, not by any natural signification, but by a voluntary imposition, it is plain cheat and abuse when I make them stand, sometimes for one thing, and sometimes for another, the wilful doing whereof can be imputed to nothing but great folly, or greater dishonesty." In § 22, he says,—“Know-

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ledge and reasoning require precise and determinate ideas. * This abuse of taking words upon trust, has nowhere spread so far, nor with so ill effects, as amongst men of letters. The multiplication and obstinacy of disputes which have so laid waste the intellectual world, are owing to nothing more than this ill use of words. For though it be generally believed that there is great diversity of opinions in the volumes, and varieties of controversies, the world is distracted with, yet the most I can find that the contending learned men of different parties do, in their arguments one with another, is that they speak different languages."

In chapter II. of the same book, Locke says that morality, or the moral sciences, are as capable of exact demonstration as mathematics, if the language were reduced to the same degree of exactness, which is perfectly capable of being done—"And it must be great want of ingenuity (to say no worse of it) to refuse to do it, since a definition is the only way whereby the precise meaning of moral words can be known; and yet a way whereby their meaning may be known certainly, and without leaving any room for any contest about it. And, therefore, the negligence or perverseness of mankind cannot be excused if their discourses in morality be not much more clear than those in natural philosophy." § 26. "If men will not be at the pains to declare the meaning of their words, and definitions of their terms are not to be had, yet this is the least that can be expected, that in all discourses wherein one man pretends to instruct or convince another, he should use the same word constantly in the same sense; if this were done (which nobody can refuse without great dissimulation) many of the books extant might be spared, many of the controversies in dispute would be at an end, several of those great volumes swollen with ambiguous words, now used in one sense, and by-and-bye in another, would shrink into a very narrow compass."

This part of Locke's philosophy, Condillac has adopted to the full, and Dr. Whewell says, (*Phil. of Disc.* ch. XIX. § 6.) that the doctrine of the importance of terms is the most considerable addition to the Philosophy of Science, which has been made since the time of Bacon. Condillac maintains throughout his system that every science attains perfection just in proportion as its language is exact. Algebra is the great model of all science, and it was so, only because its language is the most perfect. And every science is capable of being brought to the same degree of exactness as Algebra, by bringing its language to the same degree of perfection.

Condillac is charged by later writers with having pushed this doctrine somewhat too far, which is probably true. But there is no doubt whatever but the censures of Locke, and the doctrine of Condillac are strikingly applicable to Political Economy. Nineteen twentieths of the controversies in this science are due to the contempt and neglect of accurate language by Economists. And the only way to raise Political Economy to the rank of an exact science, is to bestow as much care in refining and polishing its language as is done with physical science.

Condillac published a work in 1776, the same year as the *Wealth of Nations*, which gives him a position among Economists. In fact, he may

probably be considered as the founder of the Third School of Economists, for he expressly treats Economic Science as the science of Commerce, or Exchanges, which is the conception to which the general opinion of Economists is now gravitating. Although Condillac has by no means exhausted the subject, and may have expressed some inaccurate views, we have no hesitation in placing it as the foundation of true Political Economy; and nothing can be more striking than the lucid clearness and consistency of his views, contrasted with the astounding self-contradictions and obscurities of later writers. His work, of which we shall give an analysis, is called—

Le Commerce et le Gouvernement, considérés relativement l'un à l'autre. Paris, 1776.

We have shewn (PRELIMINARY DISCOURSE) that there are three schools of Economists, the third of which has for its fundamental doctrines, that the true conception of Economic Science is, that it is the Science of Exchanges, or the Philosophy of Commerce, and that value is not any quality, or anything inherent in an object, but is the exchangeable relation existing between any two quantities; and that it takes its rise exclusively in the human mind, or, as it may otherwise be expressed, in DEMAND, as Aristotle said two thousand years ago.

The general opinion of European Economists is now gravitating to this view of the science, and as far as we are at present aware, Condillac is entitled to be considered as the founder of this school of Political Economy in the above work, which was published in the same year as the *Wealth of Nations*. In consideration, therefore, of its great importance, we shall give an analysis of it.

Condillac intended to have published three divisions of his work, the first, in which the phenomena of commerce, or exchanges, which is Economic Science, are explained; the second, in which the relations of commerce, or Economic Science, to the government, and their reciprocal influence over each other, are investigated; and the third, containing a collection of practical examples, shewing the application of the principles developed in the two preceding parts. Unfortunately the third part never was published.

Condillac begins (ch. i.) by investigating the foundation of the value of things, and shews that it originates entirely from the wants and desires of men. Those things which satisfy some want, have utility; and this *want*, or estimation, is called value. To say that a thing has value, means that we think it useful for some purpose.

As people feel new wants, they learn to make use of things which they did not before. They give, therefore, value at one time to things to which at another time they did not.

Now, when things are very abundant, they feel the want of any particular portion less, because they are not afraid of being without it. On the contrary, when things grow scarce they feel the want more, because they may be without them altogether.

Hence the want, or value of a thing, naturally increases during scarcity, and diminishes during plenty. During a very great plenty, this may diminish to any degree; on the contrary, during a very great scarcity it may increase to any degree. Hence it is these variations in wants that give rise to all variations in value.

However abundant a thing may be, it has some value, however infinitesimally small, as long as we want it. On the banks of a river the water has some value, however small, because the labor of stooping to raise it up is something given for it. But in some cases a traveller would give 100 louis for a glass of water, and then it is worth 100 louis, simply because he wants it so much that he will give that for it.

Hence all value resides in the mind. But people have come to regard value as an absolute quality which is inherent in things, independently of the opinion we have of them, and this confusion of ideas is the source of bad reasoning. Value is founded on estimation.

Value, therefore, exists before an exchange. Condillac blames the Economists for saying that it consists in the relation of one thing exchanged for another. This criticism of Condillac, will we think be found somewhat overstrained, because, unless there be an exchange, there is no manifestation of value, which can be the subject of Economic Science. That science has nothing to do with an impotent desire of the mind, which has no external manifestation, but only with an effective desire which produces a phenomenon, or an effect. So mechanics has nothing to do with latent forces which give no outward sign of their existence, but only with the phenomena produced by forces.

Condillac lays down, as his fundamental doctrine,—“Une chose n’a pas une valeur, parce qu’elle coûte, comme on le suppose; mais elle coûte, parce qu’elle a une valeur.” And to this doctrine every one of common sense will give his assent.

Value, then, being the desire we have to obtain something, Condillac shews, in chap. ii., that what we give to obtain what we want, is called its *price*.

One man has more corn than he wants, another has more wine than he wants. The first wants wine, and the second corn. They must therefore make an exchange. In such an exchange, both parties will give what he wants less, to obtain what he wants more; therefore each will gain. Nevertheless, as each will wish to gain as much as he can, he will naturally try to give as little as he can of his own, and get as much as he can from the other. This contention, however, must be brought to an end. An exchange takes place, and each thing exchanged is the price of the other.

Hence we see that value and price are not absolutely identical, so as to be used always convertibly with one another.

To this we may say, that Condillac is right to a certain extent; but since, as we have said above, value is not the subject of Economic Science until it is manifested visibly by price, it can never lead to error to use price and value as convertible terms. No doubt value resides in the mind, but what we give for a thing is the measure of our value of it, and is the only thing we are concerned with. What we give for it, may therefore be correctly called ~~the~~ value of it, or its price.

Condillac then shews (chap. iii.), that all variations in price are caused by variations in what is called the law of supply and demand, and therefore that there is no such thing as absolute price.

The price varies from market to market, and is always settled by competition. That it is useless and dangerous to try to prevent these variations.

Commerce (chap. v.) is an exchange of two things, and everything which is exchanged is merchandize. Each article of merchandise is the price of the other. It supposes two things, first a superfluity of possessions on one part, and secondly a want on the other. Agriculturists and other producers, however, cannot always dispose of their surplus produce on the spot, there is, therefore, need of another class of persons to carry it to where it may be more profitably disposed of, and these persons are called merchants. This gives rise to a greater number of exchanges. Moreover they give rise to value, because, if there were no demand for the surplus on the spot where it is grown, it would have no value, but when they transport it to a place where it is wanted, it acquires a value.

In this manner, therefore, commerce augments the mass of riches (chap. vi.) It is true that it is the earth alone which produces all things, therefore it is the only source of riches. The agriculturist multiplies things of use by working the fields.

What then do merchants, if as is commonly said, an exchange is an equal value given for an equal value? If that were true it would be useless to multiply exchanges, and there would always be the same mass of riches.

It is, however, false that in an exchange the values are equal. On the contrary, each party gives less and receives more. If they did not, there could be no gain on either side. But both sides gain, or ought to do so. For this reason that value has no reference except to our wants, and that which is more to one is less to the other, and reciprocally.

The source of the error is in supposing that things have an absolute value, and therefore people think that in an exchange they give and receive an equal value. Each, however, gives less and receives more, because he gives what he wants less, and receives what he wants more. It is the surplus which furnishes the funds for commerce, and this surplus becomes wealth when it can be exchanged for something that has value for the owner, and it has value for the purchaser.

If the surplus could not be exchanged it would not be wealth. Merchants are the canals by which this surplus is carried off, and thus they encourage husbandmen to grow more. A spring which loses itself in the rocks and the sands, is not wealth for me, but it becomes so if I make trenches to carry it to my meadows. The spring is the surplus produce of the farmer, the trench is the merchant.

The wants of men (chap. vii.), as they multiply, give rise to the arts, and these increase the mass of wealth. Each artisan increases the mass of wealth, or the abundance of things which have value. The husbandman supplies the raw material, but it is the artisan who puts it into a form to be useful to society, and therefore gives it value. Every new art, therefore, gives rise to new wealth, and gives a new stimulus to commerce, for which it supplies a new fund. Thus all husbandmen, merchants, and artisans, combine to augment the mass of wealth.

If, therefore, the earth is the only source of

productions, and therefore of wealth, we see, on the other hand, that labour gives a value to a number of productions, which without it would have none. It is therefore shewn that labor is also a source of wealth.

In chap. viii., Condillac discusses wages, and shews why wages differ in different employments. Each man's wages regulate his consumption.

In chap. xii., Condillac defends the right of property and bequest.

Commerce gives rise to the necessity of a precise method of estimating the value of things, hence arose the use of money. Gold, silver, and copper were the metals first discovered, because they lie more generally on the surface, and are more easily worked than iron. They were found to be useful for many purposes, and therefore they acquired a value. This value was settled exactly in the same way that the value of everything else was settled. The metals having thus become merchandize, it was found necessary to have something in commerce to perform the functions of money, and they were then appropriated to this purpose, as being found to be most suitable for it.

In the beginning of society there was no need for a measure of value. But when commerce began, the want of one was felt. And it was from the use of this measure, that the misconception gradually arose of things having an absolute value. Gold and silver are the best suited by nature to serve as this measure of value. Commerce, as said above, augments the mass of riches by facilitating and multiplying exchanges, and thus gives value to things which had none before. Gold and silver money tend powerfully to the same end by facilitating and multiplying exchanges.

And we may add, Credit does more so still, as it increases the number of exchanges just as money does. (CREDIT).

Gold and silver thus becoming money, it was next found convenient to have them divided into pieces of fixed weight and fineness, by public authority, stamped with a sign to denote this, and these pieces were called *coins*.

The metals, however, so divided and stamped, were nothing but merchandize. They had merely a stamp and a new name. They had no value except what they had as merchandize. They are, therefore, valuable things like everything else. Because it is with gold and silver that we purchase things, men got the notion that they were the only species of wealth, or at least the principal. This is an error; but it is also an error to say that they are nothing.

The use of money (chap. xv.) as a measure of value has given rise to the confusion about value. If men had continued to traffic by way of barter, they would have seen clearly that they always gave less and received more.

But as soon as money was introduced, they naturally thought that it was an exchange of equal values, because each thing was valued at the same quantity of money. By means of money the respective values of quantities of corn and wine may be measured, and then men see nothing in their values except the money, which is their measure. All other considerations are lost sight of, and because this quantity is the same, they think that each of the quantities is equal in value.

Nevertheless, although a man gives a quantity of corn, valued at 10 ounces of silver, and receives a quantity of wine valued at the same, it by no means follows that the advantage of both parties is equal. Because, if the corn is absolutely necessary to one, and the wine is not necessary to the other, one has the advantage and the other not. The comparative gains of the parties are, therefore, to be estimated by the intensity of their relative wants, and not by the absolute amount of money.

It is the inequality of values, according to the wants and opinions of people, that gives rise to and supports all commerce. Because, by it, each one gives less and receives more.

Every year (chap. xvi.), at a fixed time, the farmers carry their rents in a lump to the towns; every market day they sell some produce, and thus bring back to their village, in detail, the sums they sent away in gross.

The merchant buys things wholesale, and sells in detail, and receives back the price. Thus, continual small sales replace the sums spent in purchasing in gross; and when this replacement is made, purchases are again made in gross, to be replaced in detail. Money is, therefore, always being scattered, to be again collected into reservoirs, as it were, from which it is again spread by a multitude of small canals, which bring it back to its first reservoirs, whence it is again scattered, and to where it again returns. This continual movement, which collects it to scatter it, and scatters it to collect it, is called *CIRCULATION*.

This circulation manifestly means an exchange at each movement. If there is no exchange, it is not *circulation*. Mere transport of money is not circulation. In circulation, the money must, as it were, transform itself into something else.

Credit, however, is used to a great extent instead of money, and performs the same functions.

The mention of Credit then leads Condillac to explain the nature of the exchanges (chap. xvii.). This is very clearly done, but as there is nothing novel in it we may pass it over. In chap. xviii. he explains the nature of interest, and shows that money naturally produces interest, which was the stumbling-block of Aristotle, and the Church in the middle ages, and was first dispelled by Calvin. (CALVIN.) In chap. xix. he examines the causes of the different values of the precious metals. In chap. xx. he investigates what he calls the true price of things, and shews that it depends on the general competition in all the different markets. In the two next chapters he treats of monopolies and the circulation of corn.

In chap. xxiii., Condillac says that the precious metals are the best fitted of any merchandize to be a common measure. But from age to age they vary very greatly in their quantity, and therefore they are unfit to be a permanent measure. Nor are they fit measures in different places for the same reason.

To judge of one's income simply by the quantity of money received, is erroneous. One appears richer in a town, and less rich in the country than the reality. An article is always of the same value if the proportion of supply and demand is always the same. No other commodity preserves this relation so uniformly as corn. Corn, therefore, has always the same value, a value fixed and permanent. Here is a slip of Condillac's,

for this is making value absolute, which he has himself so strongly contended against.

This fixed and permanent value can, however, only attach to corn, when the trade in it is absolutely free. If it is oppressed by duties, monopoly, and prohibitions, it can never be at its true value, and if not, it will perpetually vary in value.

Farmers who pay fixed rents in money, lose when corn is very low, landlords lose when it is very high. It is better for all parties, therefore, that rent should be paid in kind. This opinion of Condillac's which is very commonly held, is not, we think, well founded. (RENT.)

Condillac then (chap. xxiv.) traces excellently, the inter-dependence of all classes upon each other, and how order arises from this mutual dependence. If all men had the same wants and tastes, the same arts and products would be everywhere cultivated. But when new tastes and wants are called forth, these new demands give rise to new productions, and to new arts. Thus arises a great commerce which enriches the State.

Condillac then considers many questions relative to cultivation, and population, and shews the erroneousness of making the numbers of the population, a certain test of the prosperity of the nation, as was commonly done, and as Adam Smith does. In the two next chapters, he enters into considerations about the habits and manners of the people, which are, in our opinion, somewhat beyond the strict limits of Political Economy, and therefore we shall omit them.

In chap. xxviii, he discusses Taxation, and in this he shares the views of the Physiocrats more nearly than in any other part of his doctrines. He says that there are only two classes of citizens, proprietors, to whom all the lands and productions belong, and those who having neither lands or productions of their own, live on the rewards of their labor, or as we may borrow the French expression, the *salaried* classes.

The first class can easily pay, because owning all the productions, if it has not all the money, it has more than its equivalent, and besides it all passes through their hands.

The second class of persons cannot. It cannot furnish subsistence to those who work, since it has no productions of its own. It cannot give them money to buy this subsistence, because it has no money but what it earns. And these wages reduced to the lowest point by competition, are only enough to enable it to subsist itself.

The first idea that would strike unprejudiced persons would be this,—Are those who have nothing to contribute to the expenses of the State in the same way as those who have something? Or in this way,—Are those who have nothing but their brains and arms, to pay to the State money that they have not got? To tax the *salaried* classes, who only earn just enough for their own living, is to ask them to pay money that they have not got.

Taxes upon industry seem to us to be reasonable and just, because without ever really investigating the matter, we judge them to be so, from finding them established. Nevertheless, this established order is very frequently nothing but an abuse.

If we go to the merchants, when they have just had a new tax laid on them, we are not the least astonished that they wish to raise their prices.

We see that they are right, and we pay the price they demand. We are, therefore, manifestly self-contradictory. We wish to make the merchants pay taxes, and then immediately to recoup them. Surely it is much simpler to tax ourselves at first!

But the merchants and artisans grow rich! There is the source of our prejudices. Tax them then! They will repay themselves. It is, therefore, impossible to tax them.

It may be said that owing to their necessity to sell, they cannot always recoup themselves the whole of the tax, and, therefore, they must pay part. That is partly true. But it is to be observed that that part comes out of their wages, and that diminishes their consumption. In France, there are by this means, several millions of citizens who are obliged to retrench their consumption. Can the land, therefore, produce the same income when it sells fewer products to many millions of citizens? No matter whether the *salaried* classes recoup themselves the whole, or only a part of the taxes levied on them, it is proved that these taxes must equally fall back on the proprietors. The proprietors must pay for the *salaried* classes, because they pay them. It short, whichever way we look at it, they must pay all.

Either the country produces enough for all its citizens, or only a part of it. In the first case, its productions which form all its wealth, belong entirely and exclusively to the proprietors. This class, alone, therefore, can sustain all the public expenses.

In the second case, the soil does not produce enough to support its inhabitants. They must therefore obtain what is wanted elsewhere, which can only be done by their industry. By the products of this they purchase what they require.

This riches, however, is precarious, and may be lost; and when it is so, the population will diminish proportionably, until it is no greater than its soil can support. While it continues, however, a great part of its wealth will belong to the merchants, who have acquired it by their industry from foreign nations. Condillac then enters into an argument, to prove that by laying a tax on merchants, the proprietors in foreign countries are made to contribute to the national burdens—a doctrine that is clearly untenable—though it was for long the Protectionist creed in this country, when it was asserted that by laying on an import duty, we were taxing the foreigner, whereas it was quite clear that it was just the reverse. The way to tax the foreigner is to put on an *export* duty.

Condillac then comes back to his previous doctrine, and ends by saying, that all taxes on industry are illusory, because, turn it how we may, they always fall back on the proprietors. They necessarily diminish consumption, and in diminishing consumption, they hinder reproduction. They tend, therefore, to deteriorate agriculture.

Such is Condillac's doctrine. The considerations opened up by it are much too vast and important to be despatched in a few sentences; we, therefore, say nothing about it here.—(TAXATION.)

Condillac then says (chap. xxix.) that riches are only multiplied by labour. All productions are owing to the labour of the husbandman, and

all the forms given to raw produce are owing to the artisan and the artist. Moreover, these riches only acquire a value by the labour of the merchant, who transports them from where they are superabundant to where they are wanted. The value of things is, therefore, partly due to the labour of merchants. Moreover, all these classes want a protector to preserve order. The government, therefore, combines with the others to increase, as well as to preserve wealth. The nation is most rich which gives occasion to the greatest variety of labor. Let us suppose for a moment, that all the nations of Europe guided themselves by these principles, which perhaps they will never understand. There would then be entire free trade, in which they would all find their advantage. All equally busy, they would feel their mutual want. They would no longer think of depriving each other of their manufactures and commerce. They would be satisfied each to work and to have something to exchange. What does it matter whether a certain species of cloth is made in England or in France, if the English are obliged to exchange their cloth for other manufactures of France. Only let us work, and we shall have nothing to envy other nations. As much as we want to work for them, just so much do they want to work for us. If we want to take their works, they want to take ours. We injure them, they injure us. Absolute freedom of employment, then is the true source of wealth.

Occupied in doing each other as much injury as possible, each nation wishes to enjoy exclusively the advantages of commerce, each in the exchanges made, wishes to keep all the profit. They do not see that by the very nature of an exchange, *there is necessarily a profit on both sides, because each side gives less and receives more.*

A single person who does not know the true market price, may be cheated in his purchases. Nations are merchants; it is at home that the markets are held; the price of things is known to them. By what art then can we force them to give us always more for less, in respect to them, when we always give them less to receive more in respect to us? This art is nevertheless the grand object of government. It is the philosopher's stone which they are searching for, and which they will assuredly never find.

But say you, it is of the greatest consequence to draw to ourselves as much gold and silver as possible from foreign nations. We must, therefore, prevent them from selling us what they produce or manufacture, and force them to buy what we produce or manufacture.

You really believe then, that a million of gold and silver is greater wealth than a million of other productions! Are you really ignorant that productions are the first wealth? What will you do if other nations, who reason as ill as you do, wish also to draw your gold and silver to themselves? That is what they will try. Every nation will, therefore, try to prevent foreign merchandise from coming to them. And if they succeed, it is a necessary consequence that their own merchandise will not go anywhere else. For wishing to keep each to itself, all the profits of trading, they will cease to trade with one another, and thus they will lose all profits.

Such is the effect of prohibitions. Who yet

dares to be sure that Europe will open its eyes? I wish it would; but I know the force of prejudice, and I don't expect it.

In short, commerce is not for Europe an exchange of works in which each nation finds a profit, it is a state of war in which each tries to rob the other. They think, as they did in times of barbarism, that nations can only grow rich by robbing their neighbours.

Condillac then concludes the chapter by earnestly advocating unbounded freedom of trade.

The first part of the work concludes with a chapter giving a *résumé* of the doctrine of the whole part.

Condillac having thus, in the first part, traced the grand outlines of Economic Science, and shewn that universal free trade is the proper order of things, in the second part takes general free trade as the basis of his argument, and examines in succession the mischievous consequences produced by all violations of, and attacks on, the principle. These are wars, custom-houses, taxes on industry, privileged and exclusive companies, taxes on consumption, tamperings with the currency, government loans, paper money, laws about the export and import of corn, laws about the internal circulation of grain, tricks of monopolists the commercial jealousy of nations, commercial gambling, &c. The effects of each of these are examined with admirable skill.

Such are the first two parts of this work. The third, unfortunately, was never written.

The analysis given above, will give the reader a notion of the scope of this admirable work, and its immense importance is manifest: for it is the true foundation of modern Political Economy.

Condillac expressly declares the true function of Economic Science to be the Science of Commerce. And in dealing with the subject, we see the immense superiority of a mathematical and metaphysical mind. For he places the source of value in the human mind, in wants and desires, or in demand. And having done so, he naturally shews that all variations in value depend on variations in demand and supply. That is, he instinctively, as a physical philosopher, never dreams that there can be more than one general fundamental theory of value. He, as every physicist would do, who really paid attention to the subject, would have been utterly aghast at the notion that the science could be based on six or seven fundamentally conflicting theories of value, as is the fashion at the present day.

Thus, too, he strikes at the root of many of the prevailing theories of value, which are based upon labour; for he says that people pay for things because they value them, and they do not value them because they pay for them, as is commonly supposed. This is exactly the doctrine of Dr. Whately, when he says that people dive for pearls because they fetch a high price, and they do not fetch a high price because people dive for them. It is the identical doctrine that we have so often maintained, that it is not labour that is the cause of value, but value that attracts labour.

This is a complete revolution in Political Economy—as great as has occurred in any of the physical sciences.

Condillac having thus laid down the true basis of the science, first proclaimed, as far as we are

aware, the doctrine that in commerce *both* sides gain. The old doctrine sanctioned by Montaigne, Bacon, and many others, was that what one side gains, the other loses. This pernicious folly was the cause of many bloody wars. The Physiocrats then maintained that in exchanges the values are equal. But Condillac laid down the true doctrine, that in commerce *both* sides gain. And he shews truly that the whole of commercial dynamics arise from these inequalities of value.

Condillac has been classed as a Physiocrate, because he says in one place that the earth is the source of all wealth. His doctrines also of taxation agree with theirs. But with respect to the first he is not consistent, because he shews unanswerably that labor is productive, as well as the earth. This was the same doctrine as Smith maintained in the *Wealth of Nations*, published in the same year. He has also well stated the true doctrine of CIRCULATION. He has treated the subject in the true scientific manner, as he begins by assuming a state of perfectly free exchanges, and considering the evil effects produced by various perturbations.

It is true that Condillac's work can by no means be considered as a complete treatise, because it requires immense development. Nevertheless it lays down the broad outlines of true Economics. Smith's work and Condillac's were published in the same year. Smith's attained universal celebrity in a very short time. Condillac's was, as far as we can find out, quite neglected. Nevertheless the whirligig of time is now bringing about its revenges; for all the best European Economists are now gravitating to the opinion that Condillac's is the true conception of Economic Science. (ECONOMY, POLITICAL). The beautiful clearness, and simplicity, the instinct of the true Physicist are visible throughout, and shine in painful contrast to the incredible confusion and self-contradictions of Adam Smith. At length he will receive justice, and after the neglect of 85 years, he will emerge as the true founder of modern Economic Science.

CONDI-RAGUET, of Philadelphia, United States, *Chargé d'Affaires* at the Court of Brazil. *A Treatise on Banks and Circulation.*

CONDORCET, MARIE JEAN ANTOINE NICOLAS, MARQUIS DE, a distinguished mathematician, philosopher, and Economist, was born at Ribemont, near St. Quentin, in Picardy, the 17th September 1743. His father, the younger brother of Caritat, successively from 1741, Bishop of Gap, Auxerre, and Lisieux, was a captain of cavalry, and belonged to a family of a high rank in the principality of Orange. The captain died when his son was four years old, and he was then entirely under the care of his mother, a superstitious devotee, who thought that the only way to preserve him from the dangers of childhood was to dedicate him to the Virgin, and clothe him in white. For the next eight years he was therefore dressed as a girl! This of course prevented him going to school and mingling with other boys, and enjoying the education and sports of a boy. He saw nobody at home but Jesuits and persons imbued with the highest notions of aristocracy. The natural reaction followed, and Condorcet afterwards became the warmest opponent of priests and aristocracies.

In 1756, at the age of 13, he carried off the second prize at the Jesuits' school at Reims, and in 1758, he was transferred to the Collège de Navarre at Paris, where he began his mathematical studies, and in ten months his progress was so rapid, that three of the most eminent mathematicians of the day, Clairant, d'Alembert, and Fontaine, who examined him, hailed him as a future member of the Academy. This decided him to follow up his scientific bent.

In 1762, we find that he was under the guardianship of the Duc de la Rochefoucauld, who introduced him to the most distinguished society of Paris.

The new analysis founded by Leibnitz, was now cultivated with the greatest ardour by a brilliant band of continental mathematicians, and Condorcet flung himself into it with zeal.

In 1764, he presented an essay on the Integral Calculus to the Academy of Sciences, which was received with great favour and printed in its transactions.

In 1768, the Academy was willing to elect him a member, but his relations were horrified at the idea that one of their family should so far forget what was due to their rank, as to devote himself to science. But in 1769, his love for science was so strong, that they were obliged to resign themselves to their fate that he should become a philosopher instead of a captain of cavalry, and he was elected a member, notwithstanding his youth.

The doctrines of the Economists were then making a sensation in the philosophical world. Condorcet soon became the fast friend of Turgot, and resolved henceforth to confine himself to mathematics and Economics. He became an ardent Free Trader, and proclaimed it as one of the fundamental rights of men of which no law could justly deprive them. He wrote strongly against Necker, who was a Protectionist.

On the death of Louis XV., Turgot was called to the ministry in accordance with the general demand of the public, and he rewarded Condorcet by appointing him inspector of the Mint. After the fall of Turgot, of whom the public was not worthy, Condorcet did not choose to hold office under Necker, who was his personal enemy in consequence of his attacks on his doctrine, and he resigned: Condorcet testified his friendship for Turgot by writing his life in 1786.

In 1773, he was elected perpetual secretary of the Academy, in consequence of having written the *éloges* of the members who had died between 1666 and 1699, when Fontenelle's celebrated series begins. Condorcet's *éloges* were much admired, and he was told that the public would wish an Academician to die every week, in order to have an *éloge* from him.

The Academy was divided into two parties, headed by Buffon and d'Alembert. In 1782, there was a vacancy, and the election of a member was one of the great pitched battles between these great rivals. D'Alembert started Condorcet, and Buffon backed Bailly. After a keen conflict Condorcet carried the election by one vote. D'Alembert rushed about with the greatest glee, saying that he would sooner have beaten Buffon than squared the circle.

Condorcet was elected to the Legislative Assembly and appointed its secretary, on the 3rd of October, 1791. In February, 1792, he was made

President. In April he brought forward an important scheme for the organisation of public education. He was one of the Commissioners appointed to take into consideration the weights, measures, and coinage; and on whose report the decimal system was introduced into France.

Condorcet was one of the Girondins. He voted for the severest punishment on Louis XVI., short of death. Although a Girondin, he respected the integrity and public spirit of Robespierre's party, and did all he could to reconcile them, though unfortunately, without effect. On the 31st of May, the blow was struck at the party by a decree ordering the arrest of 29 of their numbers. Condorcet issued an appeal to France, and his constituents, against the act. But seeing that his friends were overpowered, he retired, and concealed himself under the care of a lady. During this period of seclusion, he occupied himself in tracing the progress of the human race to perfectibility. At length the danger increasing, and the pursuit becoming hotter every day, he did not choose any longer to expose his generous hostess to the danger of being discovered and executed. He accordingly, in defiance of all remonstrances, escaped from Paris, hoping to take refuge with a friend in the country. This friend however was, unhappily, not at home, and Condorcet wandered about for two days and nights in the extremest distress. At length hunger drove him to a small inn at Clamart, where he ordered an omelette. Being asked of how many eggs he wanted it, he replied a dozen. Such an order as this proceeding from an apparent working man, immediately excited suspicion, and a municipal officer who was present, demanded his papers and his trade. Condorcet said he was a carpenter. But he had no papers, and his hands belied his asserted trade. He was arrested on suspicion, and taken to a prison at Bourg-la-Reine, where he was confined for the night. The next morning, the 28th of March, 1794, when the Commissioners came to interrogate him, he was found dead, having taken poison, which he always carried about him in contemplation of such an emergency.

Monopole et Monopoleur.

*Lettre d'un laboureur de Picardie à M.N.** (Necker), auteur prohibitif à Paris.* Paris, 1775.
Réflexions sur l'esclavage des Nègres. Paris, 1781.

De l'influence de la Révolution de l'Amérique sur l'Europe. Paris, 1787.

Sur l'impôt progressif. Paris, 1792.

Sur la proposition d'acquitter la dette exigible en assignats. Paris, 1790.

Nouvelles réflexions sur le projet de payer la dette exigible en papier forcé. Paris, 1791.

Discours sur les finances, prononcé sur l'assemblée nationale. Paris, 1792.

Réflexions sur l'usufruit des benefices. Paris, 1792.

CONDORCET—O'CONNOR ARTHUR.

La monopole cause de tous les maux. Paris, 1849.

CONGLETON, LORD. See PARNELL.

CONGREVE, SIR WILLIAM, Bart., known as the inventor of the Congreve Rocket, was born May 20, 1772. He died May 14th, 1828.

Of the impracticability of the resumption of cash payments. London, 1813.

Principles upon which it appears that a more perfect system of currency may be formed either in the precious or non-intrinsic metals. London, 1819.

CONINCK, FREDERICK DE, Member of the Chamber of Commerce of Havre.

Réforme du tarif des douanes. Paris, 1853.

M. de Coninck has also done good service, lately, by publishing some pamphlets to point out the illusory nature of the estimates of the expense upon which the Suez Canal Bubble are based.

CONNELLAN, THADDEUS.

Easy Lessons on Money Matters, Commerce, Trade, Wages, &c. Dublin, 1835.

CONRINGIUS, HERMANNUS.

Dissertationes de arario et re nummaria. 1671.

CONSIDERANT, VICTOR, born in 1807, and educated at the *Ecole Polytechnique*. A member of the *Conseil Général* of the Seine, of the Constituent Assembly of 1848, and of Legislative Assembly of 1849. One of the chief of Fourier's phalansterians, and the editor of their paper *La Phalange*, and of *La Démocratie Pacifique*. (SOCIALISM.)

Destinées sociales, exposition élémentaire complète de la théorie sociétaire. Paris, 1844.

Théorie de l'éducation naturelle et attrayante. Paris, 1845.

Le Socialisme devant le vieux monde ou le vivant devant les morts. Paris, 1849.

CONSIDERATIONS.

On the Corn Question. London, 1813.

Brief, with reference to the Corn Laws, and the Theory of Protection generally. London, 1846.

Candid and impartial, on the nature of the Sugar Trade. London, 1763.

Concerning taking off the bounty on Corn exported. London, 1753.

On Public Credit, in a Letter to a Member of Parliament. London, 1724.

On Taxes as they are supposed to affect the price of labor in our Manufactories. London, 1765.

On the Coal Trade. London, 1748.

On the Corn Laws. London, 1791.

On the dearthness of Corn and Provisions, and a proposal to raise £2,000,000 per annum without oppression. London, 1767.

On the effect of protecting Duties. Dublin, 1783.

On the effects which the bounties granted on exported Corn, Malt, and Flour have on the manufactures of the Kingdom. London, 1768.

On the National Debt, the Sinking Fund, and the state of public Credit. London, 1729.

On the nature and origin of Literary Property. Edinburgh, 1767.

On the Poor Laws. London, 1817.

On the present high prices of provisions. London, 1764.

On the present scarcity of Silver Coin. London, 1759.

Sur la nature et sur les effets des impôts en France. Paris, 1831.

Sur les avantages de l'existence d'une dette publique, et sur la nécessité d'un plan général et complet de bonne conduite en France. Paris, 1800.

Sur les richesses et le luxe. Amsterdam, 1787.
Touching the excise of native and foreign commodities. London, 1644.

Upon a reduction of the Land Tax. London, 1749.

Further, upon a reduction of the Land Tax; together with a state of the annual supplies of the Sinking Fund, and of the National Debt. London, 1751.

Some, about the most proper way of raising money in the present conjuncture. London, 1691.

Some, touching the Sugar Colonies. London, 1732.

Some, upon the state of our public Debt. London, 1729.

Some, upon Trade. London, 1715.

Some general, concerning the alteration and improvement of publick Revenues. London, 1723.

Some general, on the fluctuation of the public Funds. London, 1761.

Some modest and sober, about Tythes. London, 1653.

CONSILIENCE OF INDUCTIONS. It has been universally observed in the history of every great Inductive Science, that as soon as true general conceptions are obtained, groups of phenomena, which have no apparent connection with one another, are suddenly discovered to depend on the same law. Thus, every great science tends towards uniformity and simplicity. This is called by Dr. Whewell by the expressive name of the *Consilience of Inductions*. (*Nov. Org. Renov.* p. 88.)

He says that he is not aware of any example in the whole history of science, in which this Consilience of Inductions has given testimony in favour of an hypothesis afterwards discovered to be false. That the theory of universal gravitation, and of the undulatory theory of light, are full of examples of this Consilience of Inductions.

Now this is so sure a mark of the certain progress of science, that if it be wanting, we may certainly conclude that it is not in a sound and progressive state.

According to the systems of Political Economy hitherto prevalent, there never has been the faintest trace of such a Consilience of Inductions. Nay, it never seems to have occurred to any one that it was either necessary or possible to arrive at any single general theory in Political Economy. On the contrary, so utterly wanting has anything like an inductive spirit been among Economists, that it is the usual practice to devise a distinct theory for each separate class of cases.

It will nevertheless be found that as soon as the true conception of Political Economy is grasped, and true general laws are discovered by genuine induction, that the very same results will be observed as have occurred in every other Inductive Science. Phenomena which were apparently unconnected, will at once be seen to be merely exemplifications of one general law.

Many examples might be cited; we will, however, only give one. Thus, it is universally observed, that small farms let at a higher comparative rate than large ones; small houses let for a comparatively higher rent than large ones; if the shares of a public company be divided into small amounts, they will bear a higher price than if they be large. Now, all these results which

are known by experience to be true, arise from the general law of supply and demand; because there are many more persons, comparatively speaking, who can afford to buy small parcels than large ones; and therefore there is, comparatively speaking, a greater competition for small than large ones.

The same rule holds good with diamonds. There is a rule regarding the value of diamonds, that they increase in price in a rapid ratio compared with the weight. This rule is found to hold good for moderate sizes, but as soon as diamonds become very large, this rule fails. Very large diamonds have not nearly the value they ought to have according to the theoretic rule. And the reason is, simply, that when they become extraordinarily large, the competitors to buy them dwindle away to such a small number, that there is comparatively less demand for them.

The very same rule holds good with the relative values of gold and silver. Ricardo has brought forward as an example of his doctrine, that cost of production regulates value, the relative value of gold and silver. "Gold and silver," he says, (p. 421, 3rd. edit.) "like all other commodities, are valuable only in proportion to the quantity of labor necessary to produce them, and bring them to market. Gold is about 15 times dearer than silver, not because there is a greater demand for it, nor because the supply of silver is 15 times greater than that of gold, but solely because 15 times the quantity of labor is necessary to produce a given quantity of it." Such an assertion, that it takes 15 times the quantity of labor to produce a certain quantity of gold, that it does to produce an equal quantity of silver, is one of those assertions, which, being contrary to a known truth, is one of those tests which proves the fallacy of the whole of Ricardo's argument. Adam Smith says very justly, (Book I. chap. xi.)—"Silver is very seldom found virgin, but like most other metals, is generally mineralized with some other body, from which it is impossible to separate it in such quantities as will pay for the expense, but by a very laborious and tedious operation, which cannot well be carried on but in workhouses erected for the purpose. Gold, on the contrary, is almost always found virgin. It is sometimes found in pieces of some bulk, and even when mixed in small and almost insensible particles with sand, earth, and other extraneous bodies, it can be separated from them by a very short and simple operation, which can be carried on in any private house by any body who is possessed of a small quantity of mercury." Smith has omitted here to mention the gold found in rocks, which requires more expensive and troublesome processes to extract, than he contemplates. But it is quite certain that even then, the process is the simplest that is required in the working of any metal. It would be far more expensive to produce an equal quantity of iron than gold. Moreover, Ricardo is in error in saying that the supply of silver is not 15 times as large as that of gold. The best authorities declare that the supply of silver is from 40 to 45 times as large as that of gold. But while its quantity is not less than 40 to 1, its value is about 1 to 15 to that of gold. How is this difference to be accounted for? The least reflection will shew that it is simply an example of the law of supply and demand, where the value of small

parcels is comparatively greater than that of large ones. Silver is, comparatively speaking, in much greater demand than gold. There are few persons in easy circumstances who do not possess more or less of solid silver plate. But such a thing as gold plate scarcely exists. What is called gold plate is only silver gilt. Solid gold is only used for such purposes as watch cases, or trinkets, such as chains, pencil cases, brooches, &c. Silver, therefore, is in far greater demand for commercial purposes than gold is, and it is this which raises its value to a higher proportion in comparison to gold, than might be expected from their comparative quantities. It might no doubt be said, that it is its very cheapness in comparison to gold that makes it more sought after, and the excessive dearness of gold that prevents it being used as extensively as silver, which is to a certain extent true. But the very cheapness of silver causes a much greater number of persons to be able to afford to have it than gold, and consequently the intensity of the demand for silver compared to the supply, is much greater than the intensity of the demand for gold compared to the supply, and this has a similar effect, as in the other cases, of raising the value of the smaller article to a much greater comparative rate than that of the larger one.

This example, too, has the further advantage of breaking down the false distinction erected by Ricardo in treating different cases of values, which is utterly subversive of the fundamental principles of Inductive Philosophy, (CONTINUITY, LAW OF,) and bringing all cases of value under one general theory.

The process of creating the science of Political Economy on the true principles of Inductive Science, furnishes many other examples of a similar nature, but this will suffice for the present, the fact is, that like the law of gravitation in astronomy, the undulatory theory in optics, the application of the law of supply and demand to Political Economy is a succession of felicities.

CONSILIENCE OF REFUTATIONS. In the preceding article we have stated that Dr. Whewell has given the apt name of *Consilience of Inductions* to the well-ascertained fact in the progress of all true Inductive Sciences, that different classes of phenomena are reduced to the same general principle, thereby affording never-failing evidence of its truth. Now, correlative to this, we may have what we may call, in imitation of Dr. Whewell, a *Consilience of Refutations*; that is, where different classes of fallacies, apparently remote and unconnected with each other, spring from the same false principle. If the eminent historian of the Inductive Sciences would think it worth his trouble, we doubt not that he might furnish examples of this second principle, as instructive and conclusive as of the first. At any rate, as Political Economy abounds with examples of the *Consilience of Inductions*, it also presents abundant examples of the *Consilience of Refutations*. We will only give one here. There are two erroneous currency doctrines, apparently of the most opposite description, yet they both proceed from the same fundamental error. The one is what is called the currency principle, which is so strongly supported by Lord Overstone and his sect. It is this, that when a paper currency be

permitted to be issued, it should only be exactly equal to the coin it displaces. The other is Law's Theory of Paper Currency, which maintains that as gold is made the basis of paper currency, so also any other article of value, such as land, &c., may be turned into money to the amount of its value, in a similar way. Now, both these errors, which are manifestly exactly opposite to each other, spring from the same fundamental error respecting the *nature* of credit. They both suppose that paper credit *represents* money. The one party says that it ought strictly to be confined to the money it displaces; the other says, apply the same principle, and turn all the valuable property in the kingdom into paper currency.

Now these spring from a fundamental misconception of the nature of credit. Credit, as we have fully explained under CREDIT and CURRENCY, does not *represent* money, but is a *substitute* for money, and is independent exchangeable property itself; and it is not founded on the quantity of money, but on the number of *transfers* of money. Now, these opposite doctrines being both founded on complete ignorance of the nature of the subject, have produced great mischief in practice. Law's Theory of Money having been repeatedly tried, has produced great financial catastrophes, which are fully detailed in this work. The attempt to enforce the other doctrine of the currency principle, would also have produced wide-spread disaster and ruin if it had been persevered in; but in the two crises of 1847 and 1857, the ministry did not dare to maintain the Bank Act, and resorted to the dangerous precedent of authorizing the Bank of England to violate the law, rather than bring down the tremendous ruin that would have ensued if it had not been relaxed. (CRISIS, COMMERCIAL; CURRENCY PRINCIPLE.)

CONSTANCIO, FRANCISCO SOLANO, an eminent Portuguese surgeon, born at Lisbon, 24th July, 1777. He translated into French the works of Malthus, Ricardo, and Godwin.

CONSTANS, GERMAIN.

Traité de la cour des monnoyes. Paris, 1658.

CONSTANT.

Crédit, agricole et foncier. Paris, 1850.

CONSUMPTION. All Economists use the word Consumption as the correlative of Production, whatever that may mean. Unfortunately, however, no Economist has scientifically investigated the meaning of the word Production, and consequently the economic meaning of Consumption is still in an equally unsettled state.

The words Production and Consumption are two of the leading fundamental terms in Economic Science, and they are so intimately related to one another, that it would have been very convenient to have considered them together. As the arrangement of this work, however, does not permit that, we must simply refer to the article PRODUCTION, in which the Economic meaning of that term is fully investigated.

We shall, in the following remarks, lay before our readers what some of the principal writers on the subject have said about Consumption, and the different meanings that have been attributed to it,

and we shall then endeavour to eliminate all accidental ideas from the term, by the usual methods of Inductive Logic, and reduce it to that extreme degree of generality to which we have said that all the fundamental conceptions of every science must be brought, before they can be accepted as fitted to form the basis of a science—namely, that in which they shall contain but one fundamental idea. And what this single fundamental idea is, can only be determined by keeping steadily in view the nature and the limits of the science.

It will not be necessary to go to any author before Adam Smith; we shall therefore lay before our readers a few passages from the *Wealth of Nations*, and endeavour, if possible, to discover what Smith meant by *Consumer* and *Consumption*. The first sentences of the Introduction to the work are as follows:—

“The annual labour of every nation is the fund which originally supplies it with all the necessities and conveniences of life which it annually consumes, and which consist always either in the immediate produce of that labour, or in what is purchased with that produce from other nations.”

“According, therefore, as this produce, or what is purchased with it, bears a greater or smaller proportion to the number of those who are to consume it, the nation will be better or worse supplied with all the necessities and conveniences for which it has occasion.”

In Book II., chap. i., he says, that when a man possesses sufficient stock to maintain him for months, or years, he “naturally endeavours to derive a revenue from the greater part of it, reserving only so much for his immediate consumption as may maintain him till this revenue begins to come in.”

He also says, in the same chapter, that in floating capital is to be classed “money by means of which all the other three are circulated and distributed to their proper consumers.”

In chap. ii. of the same Book, he says:—

“Though the weekly or yearly revenue of all the different inhabitants of any country in the same manner may be, and in reality frequently is, paid to them in money, their real riches, however, the real weekly or yearly revenue of all of them taken together, must always be great or small in proportion to the quantity of consumable goods which they can all of them purchase with this money. The whole revenue of all of them taken together is evidently not equal to both the money and the consumable goods; but only to one or other of those two values, and to the latter more properly than to the former.”

“Though we frequently, therefore, express a person's revenue by the metal pieces which are annually paid to him, it is because the amount of those pieces regulates the extent of his power of purchasing, or the value of the goods which he can annually afford to consume. We still consider his revenue as consisting in this power of purchasing or consuming, and not in the pieces which convey it.”

And further on in the same chapter, after shewing that the use of money is to circulate and distribute these consumable goods to their proper owners, speaking of a banker's notes, he says that—“The same exchanges may be made, the same

quantity of consumable goods may be circulated and distributed to their proper consumers, by means of his promissory notes to the value of £100,000, as by an equal value of gold and silver.” here evidently shewing that credit performs exactly the same functions as money in circulating goods. And there are abundance of passages which may be quoted from Smith, to shew that he always considers instruments of credit of all sorts as performing the very same functions that money does. (CREDIT.)

Again he says, in the same chapter—

“The circulation of every country may be considered as divided into two different branches: the circulation of the dealers with one another, and the circulation between the dealers and the consumers. Though the same pieces of money, whether paper or metal, may be employed, sometimes in the one circulation, and sometimes in the other, yet as both are constantly going on at the same time, each requires a certain stock of money of one kind or another, to carry it on. The value of the goods circulated between the different dealers, never can exceed the value of those circulated between the dealers and the consumers; whatever is bought by the dealers, being ultimately destined to be sold to the consumers. The circulation between the dealers as it is carried on by wholesale, requires generally a pretty large sum for every particular transaction. That between the dealers and the consumers, on the contrary, as it is generally carried on by retail, frequently requires but very small ones, a shilling or even a halfpenny being often sufficient. But small sums circulate much faster than large ones. A shilling changes masters more frequently than a guinea, and a halfpenny more frequently than a shilling. Though the annual purchases of all the consumers, therefore, are at least equal in value to those of all the dealers, they can generally be transacted with a much smaller quantity of money, the same pieces, by a more rapid circulation, serving as the instrument of many more purchases of the one kind than of the other.

“Paper-money may be so regulated as either to confine itself very much to the circulation between the different dealers, or to extend itself likewise to a great part of that between the dealers and the consumers. Where no bank notes are circulated under ten pounds in value, as in London, paper-money confines itself very much to the circulation between the dealers. When a ten pound bank note comes into the hands of a consumer, he is generally obliged to change it at the first shop where he has occasion to purchase five shillings' worth of goods, so that it often returns into the hands of a dealer before the consumer has spent the fortieth part of the money. When bank notes are issued for so small sums as twenty shillings, as in Scotland, paper-money extends itself to a considerable part of the circulation between dealers and consumers.”

Again, in Book V., c. ii., in speaking of taxes on commodities, he says,—“Consumable commodities, whether necessities or luxuries, may be taxed in two different ways: the consumer may either pay an annual sum as on account of his using, or consuming, goods of a certain kind: or the goods may be taxed while they remain in the hands of the dealer, and before they are delivered to the consumer. The consumable goods which

last a considerable time before they are *consumed* altogether, are most properly taxed in one way: these of which the *consumption* is either immediate or more speedy in the other."

So again, in the same chapter, he says,—"The duties upon foreign luxuries imported for home *consumption*, though they sometimes fall upon the poor, fall principally upon people of middling, or more than middling, fortune."

Now the question is this—In these passages just cited, what is the meaning of these mysterious words *Consumer* and *Consumption*? Can any human being divine what Smith means by *consumable goods*? From many of the passages cited he evidently means destructible goods. Is that his meaning? Most goods, we imagine, are capable of being destroyed. But do persons always buy goods to *destroy* them? Is the consumer of goods the destroyer of them? It is true that some goods are bought for the purpose of being destroyed, such as food of all sorts, candles, oil, fireworks, and many other things, in which destruction is necessary to their use, and they are only useful by being destroyed. In other goods, again, destruction is incidental to their use—such as clothes, houses, some species of furniture, utensils, carriages, watches, &c. Now these are not bought for the purpose of being destroyed, though that invariably accompanies their use. But there are many things which are not bought for the purpose of being destroyed, nor is destruction incidental to their use. Thus, for instance, if a man buys statues with his income to gratify his tastes, does he mean to *destroy* them? or is destruction incidental to their use? Certainly not. If a statue be preserved from the weather, there is no limit to its duration. It will last as long as the world. The same may be said of many other things, such as porcelain, trinkets, precious stones, and many articles of furniture.

Now the sculptors, goldsmiths, &c., who make and sell these statues, trinkets, &c., are certainly their *producers*, and therefore we should naturally call the purchasers the consumers, and, in fact, Smith, in some of the above passages, evidently uses the word *consumers* as synonymous with purchasers. Is then the purchaser of an article to be considered as the *consumer*, if he does not destroy it? We do not think that Smith's work furnishes any answer to this question; or is the word consumers to be confined to the purchasers of destructible articles? Are then the purchasers of indestructible articles not consumers? If the makers and sellers of all articles, destructible and indestructible are *producers*, surely the purchasers of these same articles must be all *consumers*, since it is agreed that consumption is the end of all production.

Smith's work, according to the introduction, only treats of Production and Distribution, whatever they may mean, and there is no part of it which expressly treats of consumption. But J. B. Say defines Political Economy to be the Science which treats of the *Production, Distribution, and Consumption of Wealth*, and it is divided into books treating of these respective subjects. Now by production he means the creation of Value (*Production*), and by Consumption he means the destruction of value. Thus, in the *Epitome* at the end of his *Traité d'Economie*

Politique, p. 572, he gives these definitions:—

"*CONSOmmATEUR*. C'est celui qui détruit la valeur d'un *produit*, soit pour en produire un autre, soit pour satisfaire ses goûts ou ses besoins.

"*CONSOmmATION*; *CONSOmmER*. Consommer, c'est détruire la *valeur* d'une chose, ou une portion de cette valeur, en détruisant l'*utilité* qu'elle avait, ou seulement une portion de cette utilité.

"On ne saurait consommer une valeur qui ne saurait être détruite. Ainsi, l'on peut consommer le *service* d'une *industrie*, et non pas la *faculté industrielle* qui a rendu ce service; le service d'un terrain, mais non le terrain lui-même.

"Une valeur ne peut être consommée deux fois; car dire qu'elle est consommée, c'est dire qu'elle n'existe plus.

"Tout ce qui se produit se consomme; par conséquent toute valeur créée est détruite, et n'a été créée que pour être détruite. Comment dès lors se font les accumulations de valeurs dont se composent les *capitaux*? Elles se font, par la *reproduction* sous une autre forme, de la valeur consommée; tellement que la valeur capitale se perpétue en changeant de forme."

This doctrine of consumption, meaning destruction, has been so widely received among Economists, that we must give some further extracts from Say to make our readers fully acquainted with his doctrine. The third book of his *Traité* treats of the *Consumption of Wealth*, and he says:—

"La production ne pouvait s'opérer sans consommation, j'ai dû, dès le premier Livre, dire le sens qu'il fallait attacher au mot *consommer*.

"Le lecteur a dû comprendre, dès-lors, que, de même que la production n'est pas une création de matière, mais une création d'utilité, la consommation n'est pas une destruction de matière, mais une *destruction d'utilité*. L'utilité d'une chose une fois détruite, le premier fondement de sa valeur ce qui la fait rechercher, ce qui en établit la *demande*, est détruit. Dès-lors elle ne renferme plus de valeur; ce n'est plus une portion de richesse.

"Ainsi, *consommer, détruire l'utilité des choses* *anéantir leur valeur*, sont des expressions dont le sens est absolument le même, et correspond à celui des mots, *produire, donner de l'utilité, créer de la valeur*, dont la signification est également pareille.

"Toute consommation, étant une destruction de valeur, ne se mesure pas selon le volume, le nombre ou le poids des produits consommés mais selon leur valeur. Une grande consommation est celle qui détruit un grand valeur, sous quelque forme que cette valeur se manifeste.

"Tout produit est susceptible d'être consommé; car si une valeur a pu être ajoutée à une chose, elle peut en être retranchée par l'usage qu'on en fait, ou par tout autre accident. * * *

"Tout ce qui est produit est tôt ou tard consommé. Les produits n'ont même été produits que pour être consommés."

Now, with respect to this doctrine, we ask—Are statues and other gold ornaments produced for the purpose of being destroyed? And the work of the sculptor produces a value, according to Say. This case, as well as numerous others that might be cited, at once proves the fallacy of Say's doctrine. There are many works of value produced without the smallest intention of their being destroyed, and which have no principle of decay in them whatever. Was the Britannia

Bridge produced for the purpose of being destroyed?

It is quite clear from these examples that we must search for some idea of consumption far more general than that of destruction.

Say having, then, defined consumption to mean destruction, says that there are two kinds of consumption, Productive Consumption and Unproductive Consumption.

Productive Consumption is where an article is destroyed with the intention of being reproduced, or at least in its value.

Unproductive Consumption is where an article is destroyed without replacing its value.

The former of these corresponds with what Smith denominates Capital, and the latter with Revenue.

Say was determined to make the term *productive consumption* co-extensive with Capital; and in order to do this, he is led into a very remarkable confusion of ideas. For he is led not only to apply it to a destruction of materials, but also to their exchange.

Thus he says, *Traité*, p. 438,—"Dans sa consommation annuelle d'un particulier ou d'une nation, doivent être comprises les consommations de tout genre, quels qu'en soient le but et le résultat, celles d'où il doit sortir une nouvelle valeur, et celles d'où il n'en doit point sortir; de même qu'on comprend dans la production annuelle d'une nation la valeur totale de ses produits créés dans l'année. Ainsi l'on dit d'une manufacture de savon qu'elle consomme en soude une valeur de vingt mille francs par an, quoique la valeur de cette soude doive reparaître dans le savon que la manufacture aura produit; et l'on dit qu'elle produit annuellement pour cent mille francs de savon, quoique cette valeur n'ait eu lieu que par la destruction de beaucoup de valeur qui en réduiraient bien le produit, si l'on voulait les déduire. La consommation et la production annuelles d'une nation ou d'un particulier sont donc leur consommation et leur production brutes.

"Par une conséquence naturelle, il faut comprendre dans les productions annuelles d'une nation, toutes les marchandises qu'elle importe, et dans sa consommation annuelle toutes celles qu'elle exporte. Le commerce de la France consomme toute la valeur des soieries qu'il envoie aux Etats Unis; il produit tout la valeur des cotons qu'il en reçoit en retour."

Say's idea is that the nation loses the value of what it exports, and gains the value of what it imports,—it may therefore be said to consume the one and produce the other.

But surely this is inconsistent with accepted language. A nation surely *produces* what it exports and consumes what it imports.

If this doctrine be true, the seller and the buyer of goods must both *consume* them. Because the seller loses their value, gaining their price in exchange, and the buyer, in most cases, destroys them.

If this be true every shopkeeper consumes his goods by selling them.

We shall now see the consequences of this contortion of language. Say says a little further after the last extract, at p. 440:—"L'effet le plus immédiat de toute espèce de consommation est la perte de valeur et par conséquent de richesse, qui en résulte pour le possesseur du produit consommé. Cet effet est constant, inévitable, et jamais on ne

doit le perdre de vue toutes les fois qu'on raisonne sur cette matière. Un produit consommé est une valeur perdue pour tout le monde, et pour tous-jours."

Now let us apply this last doctrine to Say's previous one, that a nation consumes what it exports. Two nations export their produce one against the other. Each, therefore, according to Say, consumes its exports. But every consumption is destruction. Therefore, each nation destroys its exports for all the world and for ever! Therefore, nations by trading with each other destroy their wealth! A watchmaker sells a gold watch to a customer for money. According to Say he consumes the watch, and the buyer, by the same doctrine, consumes the money. But every consumption is a destruction of wealth for all the world and for ever. Therefore, the buying a gold watch for money, is a destruction of the money and the watch!! Therefore, by exchanging things, we destroy them!!

But, as according to the same passage, each produces what he purchases, that is the creation of two new values, it follows that the same act of exchange is at the same time a total annihilation of the things exchanged, and a creation of two new values!!

Such are the astonishing absurdities into which able men are led by a premature grasping at the meaning of a scientific term. The settlement of the meaning of a term requires as genuine an act of induction as the settlement of a principle.

Say, then, considers the different kinds of Consumption, which he considers the same as expenditure, and under this head places taxation and the public expenditure of all sorts, public debts, &c.

Now, it is manifest that these are all exchanges as truly as exchanges of merchandise. The army, the administration of all descriptions, public instructors, receive their pay in exchange for a service rendered.

Ricardo says nothing about Consumption. Malthus (*Definitions in Political Economy*, p. 247), says:—"Consumption. The destruction, wholly or in part, of any portions of wealth." And at p. 259—"Consumption is the great purpose and end of all production." So Mr. McCulloch says—"By Consumption is meant the annihilation of those qualities which render commodities useful or desirable. To consume the products of art and industry, is to deprive the matter of which they consist of utility, and consequently of the exchangeable value communicated to it by labour. Consumption is, in fact, the end and object of human exertion; and when a commodity is in a fit state to be used, if its consumption be deferred, a loss is incurred."

On this Mr. Senior has justly remarked (*Political Economy*, p. 54), "That almost all that is produced is destroyed, is true; but we cannot admit that it is produced for the purpose of being destroyed. It is produced for the purpose of being made use of. Its destruction is an incident to its use, not only not intended, but as far as possible avoided. In fact, there are some things which seem unsuceptible of destruction, except by accidental injury. A statue in a gallery, or a medal, or a gem in a cabinet, may be preserved for centuries without apparent deterioration. There are others, such as food and fuel, which

perish in the very act of using them; and hence, as these are the most essential commodities, the word Consumption has been applied universally, as expressing the making use of anything. But the bulk of commodities are destroyed by those numerous gradual agents which we call collectively *time*, and the action of which we strive to retard. If it be true that Consumption is the object of all production, the inhabitant of a house must be termed its consumer, but it would be strange to call him its destroyer, since it would unquestionably be destroyed much sooner if uninhabited. It would be an improvement in the language of Political Economy if the expression, "to use," could be substituted for that of "to consume."

Mr. Senior's remarks, that consumption cannot mean destruction, are perfectly just, partly because it is wholly false that all articles are produced for the purpose of being destroyed; and partly because Political Economy has nothing whatever to do with the destruction of things. Mr. Senior's proposal to substitute the word *use* for *destruction* is open to the same objection, on the latter ground. On the former ground it is quite correct. Things are produced for the purpose of being *used*,—but then Political Economy has nothing whatever to do with their use. At page 14, Mr. Senior says that Consumption is sometimes used as synonymous with Demand.

Mr. J. S. Mill has truly seen that the destruction of things is no part of Economic Science, and has therefore not given any part of his work to consumption, which he uses in the sense of destruction.

What then is the meaning of this word *Consumption*? It is agreed that it is the correlative of Production, and that the end of Production is Consumption. Now, it has been manifestly shewn, that if Production be held to mean to creation of a Value, and Consumption the destruction of a Value, the proposition cannot be maintained. It is wholly untrue that all values are produced or created for the express purpose of being destroyed; it is therefore not true that Consumption is the end of all Production.

The fact is, all the confusion arises from Economists never having formed a clear and distinct conception of the nature and limits of the science, and selecting that idea alone among those conveyed by the leading terms which are in harmony with the fundamental conception of the science. We have shewn under PRODUCTION that Political Economy has nothing whatever to do with the art and process by which things are manufactured, or formed, but only with their price when produced, or the things for which they will exchange. We have shewn there, that strictly following the true etymology of the word, and interpreting it in strict harmony with the fundamental conception of the science, the only true economic meaning of to *produce*, is to place a thing on a given spot for the purpose of exchanging it for something else. It makes no difference in what way the article was formed or procured, whether by growth as corn, by manufacture, or by commerce, the PRODUCER, in an economic sense, is the person who offers it for sale. And here at once we see how CONSUMPTION is the correlative of PRODUCTION. For if the Producer is the one who offers something for sale, the Con-

sumer is the purchaser of it with something else, and the CONSUMPTION means the quantity purchased.

As soon as we grasp the distinct conception that Economic Science is the Science of Commerce, or of Exchange, or of Value, it is clear that we must admit no considerations exceeding these limits. An Economist has no business to examine how, or by what process, or art, things were produced; nor has he any business to inquire for, or follow after, them when once they have been exchanged, to see what becomes of them. The domain of his science is expressly limited to the phenomenon of the exchange.

If we were to examine how things are produced, that would at once let in all the arts and manufactures of every description into Political Economy, which no Economist would dream of doing. His only office is to ascertain the laws of the changes of value of the thing when produced.

So also, as far as regards the purchaser, the Economist has nothing to do with the use he puts the thing to, but only with the price he pays for it.

Now things which a man makes and uses himself do not enter into the domain of Economics at all, only those which he acquires by purchase. If a person uses his accomplishments for the delectation of himself and his friends, the Economist has no business with him. It is only when he endeavours to exchange or turn them to profit, that they become the subject of value, and an economical phenomenon.

And this is the true commercial sense of the word, and Economics being the science of Commerce, it is proper, as far as possible, to adopt the language of Commerce. Now in the language of commerce, producers and consumers are simply sellers and buyers. Production and consumption are simply supply and demand. It is by Economists divagating from the true limits of the Science that all the confusion has arisen. Bastiat has expressed it truly (*Harmonies Economiques*, p. 360. *Art. Producteur-Consommateur*)—"En général nous nous adonnons à un métier, à une profession, à une carrière; et ce n'est pas à elle que nous demandons directement les objets de nos satisfactions. Nous rendons et nous recevons des services; nous offrons et demandons des valeurs; nous faisons des achats et des ventes; nous travaillons pour les autres, et les autres travaillent pour nous: en un mot nous sommes *Producteurs* et *Consommateurs*."

Now we see that this is the only sense in which the doctrine that Consumption is the end of Production is true, and in fact it becomes tautology, for it is reduced to this, that people offer things for sale for the purpose of being sold.

It is the only sense, too, in which consumption is the correlative of production. It is, as we have seen, wholly false to assert that all things are produced for the purpose of being destroyed.

Hence we see that Production and Consumption together constitute Exchange—the domain of Economic Science. And it is quite easy to show that the conception of the science as that of Exchanges, is fundamentally the same as that of those writers who consider it to be that of the Production and Distribution of Wealth. Because by distribution these writers mean the quantity of things acquired by persons in ex-

change for their services, &c., that is, what they have the right to consume, or purchase. And we have seen in the extracts given from Adam Smith above, that he several times uses consumers as synonymous with purchasers, which is its true commercial sense. Consumption, therefore, is equivalent to Distribution, and thus the science comes to be that of Production and Consumption, or of Exchange.

And here, too, we see the truth of what is said under CAPITAL, § 94, that it is consumption, or demand, that gives value to production, and not labour. Smith himself, after saying that the real wealth of a country consists of the annual produce of its land and labour, says that if an article will exchange for nothing, it has no value, and therefore is not wealth.

The value of a thing being the thing it will exchange for, it is quite clear that if there be no demand for it—that is, if no person will give anything for it—it has no value, whatever quantity of labour may have been bestowed in producing it. Again, if people will give a great deal to possess a thing, it has great value, no matter what labour has been bestowed in producing it. There are immense species of property which never had, nor by any possibility could have, any labour bestowed on them at all. What is it that gives value to the copyright of a work, and in fact creates a valuable property at all, but the demand for the work? What gives value to Government Stock, but the willingness of the public to purchase it? And so on of everything else whatever. By the very terms of the expression, it can be only the consumer, or purchaser, who confers value on anything whatever. When demand springs up for a thing, it has value; when the demand ceases, it loses its value, and is not wealth. Hence we see that—

CONSUMPTION or DEMAND, and not LABOUR, is the ONLY SOURCE of VALUE.

CONTARENUS, VINCENTIUS.

De frumentariâ Romanorum largitione liber.
Venetiis, 1609.

CONTINUITY, LAW OF. The great fundamental doctrine of the Continuity of the Sciences, and what is more particularly called the *Law of Continuity*, are so intimately blended together in spirit, that it is impossible to separate them. In fact, we may extend the term of the *Law of Continuity*, which is generally applied to certain doctrines in each particular science, to include the method of arguing by analogy from Science to Science.

The *Law of Continuity* is one of the most powerful weapons of Inductive Logic, and is of very wide application in Physical research. It has been applied with immense effect in settling the fundamental conceptions of Mechanics, Electricity, Geology, and, indeed, of every other science. Its capability of being applied to settle the fundamental conceptions of Political Economy has never yet, that we are aware of, even been suspected!

The grand function of the *Law of Continuity* in its application to each particular Science is to abolish false distinctions. The province of Logic being, as we have shewn (Logic), not to lead persons to argue correctly, as is very commonly

supposed, but to teach them how to JUDGE of the truth of arguments proposed. The function of the Law of Continuity may, in a general way, be said to be to abolish false distinctions. In the wider sense, which we wish to give it, as applied to the connection of the various sciences, its function is to judge by the analogy of the acknowledged standards of reasoning in one science, whether certain modes of reasoning in another are correct or not.

We shall endeavour to shew that a due application of the *Law of Continuity* in its wider sense of arguing by analogy from science to science, as well as by its particular application within the science itself, will be sufficient to close for ever a very large portion of the controversies in Political Economy.

It was a very favorite opinion of the ancient philosophers that there was a great chain of continuity throughout all nature. But it was impossible for them to perceive the full extent of this principle, and that the general principles of the reasoning in Physical Science were applicable to Moral Science. We have seen (AXIOMS AND DEFINITIONS) that Socrates was so far from perceiving any connection between the two, that he expressly discountenanced the study of physical science, and enjoined his disciples to confine themselves to the study of moral Science.

It is one of the transcendent merits of our immortal Bacon to have perceived, and proclaimed with the voice of a trumpet, this grand doctrine of the Continuity of the Sciences. And we must be the more earnest in defending the just title of Bacon to this glorious discovery, because the admirers of another writer, recently deceased, have had the preposterous absurdity to claim for him the originality of this idea, (COMTE.) But we have shown abundantly that Bacon was the true discoverer of the doctrine. With physical science not in a very much better state than it was in the days of Socrates, Bacon not only did not discountenance it, but he had the miraculous sagacity to perceive that the way to true and certain reasoning in Moral Science lay through Physical Science. And he complains bitterly of the mutual damage to the sciences by their separation, and neglect of Natural Philosophy, which ought to be held as the great nursing mother of them all. We have shewn (AXIOMS AND DEFINITIONS) that it is the whole scope and purpose of the *Novum Organum* to lay down fundamental principles for the formation of Conceptions and Axioms in Natural Philosophy, and to enforce the doctrine that the Conceptions and Axioms of the Moral Sciences must be framed by analogous methods. So also in *Valerius Terminus*, he says,—"And it is a matter of common discourse, of the chain of sciences, how they are linked together, insomuch as the Greeks, who had terms at will, have fitted it of a name of circle-learning. Nevertheless, I that hold it for a great impediment towards the advancement and further invention of knowledge, that particular arts and sciences have been disincorporated from general knowledge, do not understand one and the same thing which Cicero's discourse and the note and conceit of the Grecians in their word Circle Learning do intend. For I mean not that use which one science hath of another for ornament, or help in practice, as the orator hath of

knowledge of affections for moving, or as military science may have use of geometry for fortifications; but I mean it directly of that use by way of supply of light and information, which the particulars and instances of one science do yield and present for the framing or correcting of the axioms of another science, in their very truth and notions. And therefore that example of oculists and title lawyers doth come nearer my conceit than the other two; for sciences distinguished have a dependence upon universal knowledge, to be augmented and rectified by the superior light thereof; as well as the parts and members of a science have upon the maxims of the same science, and the mutual light and consent which one part receiveth from another.

* * * * *

"And these are no allusions, but direct communities, the same delights of the mind being to be found not only in music, rhetoric, but in moral philosophy, policy, and other knowledges, and that obscure in the one, which is more apparent in the other; yea, and that discovered in the one which is not found at all in the other; and so one science greatly aiding to the invention and augmentation of another. And therefore without this intercourse, the axioms of sciences will fall out to be neither full nor true."

And, since his day, hosts of eminent men have proclaimed the same doctrine; among others Locke and Condillac (CONDILLAC) have strongly enforced the necessity of precision and accuracy of language, and said that the moral sciences might be brought to a state of demonstration as well as mathematics, if their language were polished and refined, to the same degree of exactness as that of mathematics.

Nay, among others who have maintained this doctrine, is Mr. Mill, in the sixth book of his *Logic*; for he says, in the Table of Contents to that book, which is on the *Logic of the Moral Sciences*,—"The backward state of the moral sciences can only be remedied by applying to them the methods of physical science, duly extended and generalized." And at p. 405, 4th edit. of his *Logic*, he says,—"*In scientific investigation, as in all other works of human skill, the way of attaining the end is seen, as it were instinctively, by superior minds, in some comparatively simple case, and is then, by judicious generalization, adapted to the variety of complex cases. We learn to do a thing in difficult circumstances by attending to the manner in which we have spontaneously done the same thing in easy ones.*"

"This truth is exemplified by the history of the various branches of knowledge which have successively, in the ascending order of their complication, assumed the character of sciences, and will doubtless receive fresh confirmation from those, of which the scientific constitution is yet to come, and which are still abandoned to the uncertainties of vague and popular discussion. Although several other sciences have emerged from this state, at a comparatively recent date, none now remain in it, except those which relate to man himself, the most complex and most difficult subject of study on which the human mind can be engaged.

"Concerning the physical nature of man, as an organised being—though there is still much uncertainty and much controversy, which can only

be terminated by the general acknowledgment and employment of stricter rules of induction than are commonly recognised; there is, however, a considerable body of truths which all who have attended to the subject consider to be fully established; nor is there now any radical imperfection in the method observed in this department of science by its most distinguished modern teachers. But the laws of Mind, and even in a greater degree those of Society, are so far having attained a similar state of even partial recognition, that it is still a controversy whether they are capable of becoming subjects of science in the strict sense of the term; and among those who are agreed on this point, there reigns the most irreconcilable diversity on almost every other. Here, therefore, if anywhere, the principles laid down in the preceding Books may be expected to be useful.

"If on matters so much the most important with which the human intellect can occupy itself, a more general agreement is ever to exist among thinkers; if what has been pronounced 'the proper study of mankind' is not destined to remain the only subject which philosophy cannot succeed in rescuing from empiricism,—the same processes, through which the laws of many simple phenomena have by general acknowledgment been placed beyond dispute, must be consciously and deliberately applied to those more difficult inquiries. If there are some subjects on which the results obtained have finally received the unanimous assent of all who have attended to the proof, and others on which mankind have not yet been equally successful; on which the most sagacious minds have occupied themselves from the earliest date, and have never succeeded in establishing any considerable body of truths, so as to be beyond denial or doubt; it is by generalizing the methods successfully followed in the former inquiries, and adapting them to the latter, that we may hope to remove this blot on the face of science."

Will our readers believe that Mr. Mill, who has in the foregoing passage as clearly and distinctly affirmed as it is possible to do that the science of Society, and of course Political Economy as a part of it, is to be investigated on analogous methods to those pursued in Natural Philosophy, is the same writer, who as we have shewn under AXIOMS AND DEFINITIONS, § 19, has expressly asserted on the contrary, that Political Economy is essentially an abstract science, and its method the *a priori* one? That it must necessarily reason from assumptions and not from facts. That the *a priori* method is the only one by which truth can possibly be attained in any department of the Social Science! And he anathematizes every one else who thinks differently.

"Can such things be,
And overcome us like a summer's cloud,
Without our special wonder?"

If, then, Political Economy is to be raised to the rank of an exact science, we may say, arguing from the general analogy of science, that there must be some great body of phenomena connected together by some one principle, or idea; and if it is to be of the same wide and general nature as the other physical sciences, it must be based on Conceptions and Axioms of the same wide and general nature that they are, which must be

capable of explaining all the phenomena. Moreover, as the general conceptions and axioms in Mechanical Science not only enable us to attain desired results, but also explain the causes of Mechanical catastrophes, which can be shewn to be produced by violating the fundamental conceptions and laws of Mechanics, so it is a test of the truth of general Economical conceptions and axioms, that Economical catastrophes can be proved to be the inevitable consequence of violating these conceptions and laws.

Now, with respect to the general conception of the Science itself, we have fully explained under the article *ECONOMY, POLITICAL*, the phases of opinion with regard to the nature and extent of the Science, and the reasons which have made us adopt the conception to which the general opinion of European Economists is now gravitating, that it is the Science of Commerce, or of Wealth, and that its true function is to investigate the Laws which regulate the Exchangeable Relations of Quantities.

Although all Economists are now agreed, we believe, that Political Economy treats about Wealth, there are, unfortunately, the widest differences of opinion as to what Wealth is, and therefore as to what are the true limits of the Science. Moreover, there is scarcely a single term in the subject whose meaning is agreed upon by writers. We shall now endeavour, by the application of the Principle of the Continuity of Science, and the Law of Continuity, to shew that these differences of opinion may be settled by the analogy of other sciences.

Arguing, then, from the analogy of physical science, we may lay down these fundamental canons:—

I. *The Fundamental Conceptions and Axioms of every Science must be perfectly General.*

II. *No General Conception and no General Axiom must contain any term involving more than one Fundamental Idea.*

The truth of this is manifest, because if any term involve more than *one* fundamental idea, it limits the generality of the Conception, or the Axiom, which is contrary to the first Canon.

Consequently, if we wish to bring Political Economy to the state of an exact science, we must carefully examine all its fundamental Conceptions and Axioms, and reduce them to the state of simplicity and generality prescribed by the above Canons, and hence if we meet with Conceptions and Axioms which violate them, by containing several ideas, we must apply the general principles of Inductive Logic to discover which is the single true general idea, and eliminate all the other accidental, or particular ones.

On the application of the Law of Continuity to determine the nature of an Economic Element, or the Definition of Wealth.

Every great science is founded upon some single idea, or quality, which must be of the most general nature; and every quantity that possesses that quality, is an Element in that science, no matter what its nature be, or what other qualities it may possess.

Thus every substance which possesses divers qualities will be an element in as many sciences as it has qualities. And single qualities may exist in quantities of the most divers natures.

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It thus happens that in every science there are elements of the greatest possible diversity of form and nature.

Thus, the science of Arithmetic, or Algebra, is the science of number or measure; and consequently whatever may be numbered or measured, is an arithmetical or algebraical element. Thus, quantities of the most divers natures are brought under the dominion of Algebra, or Arithmetic, simply from their capability of being measured.

Thus time, space, velocity, material substances of all sorts, which have no other property in common but the capability of being measured, are all algebraical elements.

So the science of Mechanics, in its most general form, treats of forces. And these forces are of the most divers natures and forms, and agree in nothing except that their effects may be measured.

The general definition of force in Mechanics is, *Anything that causes, or tends to cause, motion.*

Thus, some forces are incorporeal, invisible, and intangible, like gravity.

Others may be material and corporeal, like the human arm, or animals, or a stream of water.

So there is the force of the wind, and of steam.

Others are explosive, like gunpowder.

Now, all these forces of the most diverse natures, are all mechanical elements, because they all satisfy the general mechanical definition of force.

So also in Chemistry, which is the science of the combination of bodies, there are elements of the most diverse natures, solid, liquid, and aeriform.

Now, Political Economy is the science of Values, or Exchanges; and Economists are agreed that the test of wealth is its capability of being exchanged. It is exclusively founded on the idea or conception of *exchangeability*, and consequently, following the analogy of every other physical science, *WHATEVER* can be exchanged is an economical element, whatever its nature be, material or immaterial, enduring or evanescent.

We have, then, this fundamental conception in Political Economy, that whatever can be exchanged separately, is an economic element, or an article of wealth; and the totality of economic elements is the wealth of a country, or the domain of Political Economy.

The criterion, then, of an economic element is this:—Can it be valued? Can it be exchanged for anything separately, and independently of anything else?

This criterion may seem a very simple one, and we think would meet with general assent; and yet its application requires, in many cases, a knowledge of Law and Equity, and is the test which explains the fallacy of some of the most plausible but fatal currency schemes, which have produced the most terrible catastrophes in the world.

Arguing, then, from the general analogy of the other physical sciences, we should naturally expect to find economic elements of a great variety of different forms and natures, which shall possess no quality in common, but that of being measured in value.

Thus we have, as elements containing the principle of exchangeability, some that are material and enduring, some that are material but perishable, and some that are material, and whose very use implies destruction.

So there are incorporeal elements, which perish in the using, like music, instruction of all sorts, &c.

There are incorporeal elements, which last only a limited time, like instruments of credit of all sorts, copyrights, patents, &c.

There are incorporeal elements, which contain no principle of decay in them at all, as the Funds, shares in commercial companies of all sorts, ground-rents, the goodwill of a business, &c.

Now each of these is an economical element, or an article of wealth, as long as it exists, and can be exchanged; when it ceases to exist, of course it is no longer an economic element, or wealth.

The same physical substance is an element in as many sciences as it has qualities. Thus, man is an arithmetical element, because he can be numbered.

He is a mechanical element, because he is capable of exerting mechanical force.

He is a chemical element, because his body consists of elements in combination.

He is an economical element, because he is capable of being valued, either in slave countries, where he can be corporeally sold, like cattle; or in free countries, where his services of all sorts can be measured in money. The inhabitants of a country are, therefore, parts of its wealth, or, as Adam Smith said, part of its fixed capital.

On the other hand, whatever cannot be measured in value, is not an economic element. Thus, time is not an economic element, because it cannot be valued, it cannot be bought and sold. Nor is velocity an economic element; but space may be, because space may be bought and sold.

The *Law of Continuity* will enable us to eliminate the intrusive elements, which have sometimes been held to be necessary to the definition of wealth. Thus, various writers, all admitting that exchangeability is a necessary quality of wealth, have clogged it with other ideas as requisite to it, such as labour, materiality, durability, and utility.

Now, with respect to labour, it is perfectly undoubted, that differing quantities of labour in no way whatever affect the values of the same qualities of articles.

If a man finds a nugget of gold in ten minutes, and another man takes twelve months to find a precisely similar one, that causes no difference whatever in their value.

If a man finds a diamond, it makes no difference whatever in its value whether it be found after the labour of an hour, or a day, or a week, or a month, or a year, or any number of years. Hence we see that varying degrees of labour have no influence on value. Now the *Law of Continuity* says, that *that which is true up to the limit, is true at the limit*; and as we find that varying degrees of labour do not affect value, if we diminish the labour to 0, the same doctrine must be true, and hence we eliminate *labour* from the definition of wealth.

Moreover, we observe that there are many things which may have any quantity of labour bestowed on obtaining them, and yet have no value; as, for instance, the oyster-shell, in which the pearl is found, or the rubbish in which the diamond is found, which have no value, although obtained with exactly the same labour as the pearl and the diamond.

There are also many things which have value, upon which no labour at all has ever been bestowed, such as instruments of credit, space in towns, &c.

Hence we see that LABOUR is not the ESSENCE, but the ACCIDENT of WEALTH.

We therefore eliminate LABOUR from the definition of Wealth.

We next observe that there are things of all sorts which have value, which have various degrees of durability; thus, a watch lasts very long; clothes last a shorter time; food a still shorter time; and hence, as that which is true up to the limit, is true at the limit, it follows that the durability of wealth may be reduced to the least possible time, and yet it is wealth.

Hence, we see that DURABILITY is not the ESSENCE, but the ACCIDENT of WEALTH.

We therefore eliminate *Durability* from the definition of Wealth.

This at once furnishes an answer to Adam Smith and Mr. Mill.

Smith says (Book II, c. iii.), that "The labour of a servant is unproductive, and adds to the value of nothing; but the labour of the manufacturer fixes and realises itself in some particular subject, or vendible commodity, which lasts for some time at least, after that labour is past. It is, as it were, a certain quantity of labour, stocked and stored up, to be employed, if necessary, on some other occasion. * * *

"The labour of some of the most respectable orders in the society is like that of menial servants, unproductive of any value, and does not fix or realise itself in any permanent subject, or vendible commodity, which endures after that labour is past, and for which an equal quantity of labour could afterwards be procured. The sovereign, for example, with all the officers both of justice and war who serve under him, the whole army and navy, are unproductive labourers. They are the servants of the public, and are maintained by a part of the annual produce of the industry of other people. Their service, however honourable, how useful, or how necessary soever, produces nothing for which an equal quantity of service can afterwards be procured. The protection, security, and defence of the commonwealth, the effect of their labour this year, will not purchase its protection, security, and defence for the year to come. In the same class must be ranked some both of the gravest and most important, and some of the most frivolous professions; churchmen, lawyers, physicians, men of letters of all kinds; players, buffoons, musicians, opera singers, opera dancers, &c. The labour of the meanest of these has a certain value, regulated by the very same principles which regulate that of every other sort of labour; and that of the noblest and most useful produces nothing which could afterwards purchase, or procure an equal quantity of labour. Like the declamation of the actor, the harangue of the orator, or the tune of the musician, the work of all of them perishes in the very instant of its production."

Smith says that the labour of soldiers and judges is unproductive, because the protection and security purchased by it this year, will not purchase it for the next year. He might just as well have said that those who sell food of all sorts are unproductive labourers, because the dinner which we eat, and which supports us to-day, will not support us to-morrow; or that a tailor is an unproductive labourer, because the clothes we wear out this year will not protect us

next year. He has not given us the least notion of how long things must last after they are produced, before they are destroyed, to entitle their producer to be called a productive labourer. Hence the degree of durability is immaterial, hence by the *Law of Continuity* we may eliminate it altogether.

The same observations apply to Mr. Mill. He tells us at page 8; vol. i., that "*Everything forms therefore a part of wealth, which has a power of purchasing*,"—a definition which is perfectly unexceptionable, and is, in fact, the true one. Now this definition is manifestly perfectly general, and therefore, according to it, everything, no matter what its nature be, for which anything can be had in exchange, is Wealth. This, manifestly, is contrary to Smith's notion in the last extract, for as the labour of the soldiers, judges, musicians, &c., is paid for, and therefore has power of purchasing, it must be wealth. But at page 59 of the same volume, when he comes to enumerate what he considers to be Wealth, he says that utilities produced by labour are of three sorts; utilities fixed and embodied in outward objects; utilities fixed and embodied in human beings; and lastly, utilities not fixed or embodied in any object, but consisting in a mere service rendered. He then says, "Utilities of the third class, consisting in pleasures which only exist while being enjoyed, and services which only exist while being performed, cannot be spoken of as wealth, except by an acknowledged metaphor. It is essential to the idea of wealth, to be susceptible of accumulation; things which cannot, after being produced, be kept for some time before being used, are never, I think, regarded as wealth, since however much of them may be produced and enjoyed, the person benefited by them is no richer, is nowise improved in circumstances. But there is not so distinct a violation of usage in considering as wealth any product which is both useful and susceptible of accumulation. The skill, and the energy, and perseverance of the artisans of a country, are reckoned part of its wealth, no less than their tools and machinery. According to this definition we should regard all labour as productive, which is employed in creating *permanent* utilities, whether embodied in human beings, or in any other animate or inanimate objects."

It is quite clear that this last extract is inconsistent with Mr. Mill's own definition of wealth, which was perfectly general. For here he has introduced the limitation that wealth must be susceptible of accumulation. But here he does not say what is the *degree of permanence* which objects must possess to be called wealth. Is it to be a minute, or an hour, or a day, or a month, or a year? The durability of a minute will satisfy Mr. Mill's requirement of "some time," as well as a year. And therefore, by the *Law of Continuity*, we eliminate durability altogether.

But the fact is, that Socrates, with his strong common sense, settled the matter 22 centuries ago. In the Dialogue of *ÆSCHINES SOCRATICUS*, which we have given, the question discussed was, What was wealth? And Socrates rightly decides, that whatever will purchase anything else is wealth. He says that if a man gains his living by giving instruction, that instruction is as much wealth as gold or silver. Thus we see that the principles of Inductive Logic and Socrates are in

complete harmony with each other. We, therefore, altogether reject the notion that any degree of permanence is necessary to wealth.

With respect to materiality, we cannot apply the *Law of Continuity* to that, because there are not various degrees of materiality. A quantity is either wholly material or wholly immaterial, and cannot pass from one state into the other. But as there are enormous masses of incorporeal property, which are bought and sold every day, just the same as corporeal property, that is quite sufficient to eliminate materiality from the conception of wealth.

With respect to utility, that is so vague and uncertain, that it is impossible to say what it is. There is no such thing as absolute utility. It entirely depends upon the individual. It is simpler to say that what people want and will pay for, is useful, or wealth.

We therefore eliminate all intrusive elements, and finally have exchangeability, as the sole idea of wealth. Moreover, all *degrees* of exchangeability are excluded by the same *Law of Continuity*. If a thing is exchangeable at all, it is wealth, quite independently of the area of its exchangeability. There is probably nothing which has universal exchangeability. Place gold money in a position where it ceases to be exchangeable, and it is not wealth. What use would a bag full of sovereigns be among the Red Indians, or in the centre of Africa? Hence, if a thing possesses the lowest degree of exchangeability, it is wealth. This doctrine is of great importance in the subject of Credit; because there are enormous masses of credit which never perform more than a single exchange, and yet they are to be accounted as wealth, as much as more general forms of credit. In fact, probably the largest portion of the circulating, or purchasing, power of this country consists of credit, which never moves but once.

These considerations shew that vast quantities of property must be brought into Political Economy, which have never been alluded to in any English work on the subject, such as Copyright, Patents, Annuities of all sorts, which quite overthrow many doctrines which are considered as fundamental.

Application of the Law of Continuity to settle the Definition of Consumption.

The *Law of Continuity* may be very extensively used to settle most of the other fundamental conceptions of Political Economy. Thus, we may use it to eliminate the intrusive element from the Definition of Consumption. That word is used frequently to mean destruction. But things which are purchased, are of all degrees of destructibility, from infinity downwards. Hence, as the word "consumers" is taken to mean purchasers, whether the thing purchased be destructible or not, it is quite clear that destructibility is the intrusive element, and that the true economic meaning of consumption is simply purchase.

Application of the Law of Continuity to determine the Definition and Limits of the Currency.

We shall now treat of a very important application of the *Law of Continuity*—namely, to

examine the controversies regarding the definition of currency.

The controversies as to what should be included under the term "currency," had not begun in Adam Smith's day, and consequently he does not discuss the point. But it is quite clear from his work, that he included all forms of paper credit under the term money, or currency.

In Book II., c. i., he classes as floating capital, the MONEY by means of which things are distributed to their proper consumers. He then treats paper money as in all respects the same as gold and silver for economical purposes. He says—(Book II., c. ii.)—"There are several different sorts of paper money; but the circulating notes of banks and bankers are the species which is best known, and which seems best adapted for this purpose." Here he expressly says, there are other sorts of paper money, which perform the function of circulation, besides bank notes. Now, what are these other sorts but bills of exchange and other forms of credit? He then shews that bank notes serve all the purposes of money. And how can one species of debts be currency and others not? In Book III., c. i., he speaks of the commerce which is carried on by every civilized society, between the inhabitants of the town and the country. "It consists of the exchange of rude for manufactured produce, either immediately or by the intervention of money, or of some sort of paper which represents money." Now, as bills of exchange perform the greatest part of these exchanges, it is perfectly clear that Smith considered them as part of the money or currency of the country.

We think, therefore, that it is perfectly certain from these, as well as many other passages that might be cited, that Smith clearly meant that all forms of credit were part of the currency. And this continued to be the opinion of the great majority of writers and speakers, as is fully shewn under the word CURRENCY, till a comparatively recent period.

In recent times, however, a different opinion has been adopted by an influential sect in this country. This doctrine began to appear before the Committee on the Bank Charter Act in 1832, and still more strongly before that of 1840. They exclusively limit the term currency to Bank Notes payable on demand only, and rigorously exclude all other forms of paper credit from that term; and they maintain that there are certain laws which apply to Bank Notes, payable on demand, and not to other forms of credit.

This opinion they support by certain legal reasons, which we shall not investigate here, as that is fully done under CURRENCY. We shall merely apply the *Law of Continuity* to ascertain whether this distinction is tenable or not.

The fundamental conception of a Currency which we have obtained (CURRENCY), at once shews the untenable nature of this distinction. We have shewn that Aristotle gave the true conception of a currency, that it is a pledge that we may effect a future exchange. It is, in fact, the representative of debt, or of services due, and for which no equivalent has been received. And this pledge may either be in the material and general form of money, which is only the highest and most general form of Credit, or it may be in the incorporeal and particular form of Credit,

whether expressed on paper or not. Now it is perfectly clear that there can be no distinction in principle between a debt promised to be paid one year hence, or eleven months hence, or ten months hence, or one month hence, or a week hence, or a day hence.

Hence it is clear that the different degrees of the distance of payment do not affect the nature of the thing. Therefore, by the *Law of Continuity*, that which is true up to the limit is true at the limit; if we diminish the postponement of the payment to 0, it is quite clear that it cannot affect the nature of the instrument. Hence there can be no possible distinction in principle between notes payable at any date after demand, and those payable on demand.

Nor can a debt in one form be different in its nature from a debt in another form, hence a promise to pay cannot be different in kind from an acceptance, because they are both, in fact, engagements to pay.

Hence there is no distinction in kind between Bills, or Notes, payable after date, or on demand.

The palpable absurdity of supposing that there is any distinction in principle between notes payable on demand, and after a certain date, will appear still more strongly if we take a particular case. It used to be the custom of country banks in this country to issue notes payable at certain dates after demand, for the sake of protecting themselves from a sudden demand for gold, when communication with the metropolis was slow. In some districts these notes were payable 20 days after demand. Now, the express doctrine of the sect above alluded to, excludes these notes from the term currency. Now these notes passed from hand to hand, and circulated goods just in the same way as if they were payable on demand. And we may ask,—If they were not currency, what were they? Moreover, they became currency on the day they became payable. Now, of course they were only payable during business hours. So we have this consequence:—During the 19 days they were circulating, they were not currency. They were not currency until the first stroke of the clock at which the bank doors were opened. At the last stroke, when the bank doors were opened, they were payable on demand; and then, at one stroke of the clock, in the twinkling of an eye, they were suddenly transmuted into currency! Being something before, of which we have no knowledge, in a single instant they changed their nature, and became currency! Can the force of absurdity go further? Hence we see that the *Law of Continuity* entirely annihilates the false distinction which has been erected between different forms of paper credit.

Application of the Law of Continuity to Ricardo's Distinction between Fixed and Floating Capital.

Adam Smith has divided Stock into two fundamentally distinct portions: one, which the owner uses directly for himself, which he calls revenue; the other which he employs for the purpose of profit or production, which he calls capital. And in this distinction he has been followed by nearly every other Economist. The distinction is manifestly a just one, and founded in nature; because the one is a stationary quantity, and the other is an increasing one. Mr. McCulloch, it is true, has objected to this, and

denominates capital the accumulation of existing products. (CAPITAL, § 31.) But he has evidently missed the true ground of the distinction which is founded in nature.

Now we see that Smith makes the distinction between Capital and Revenue to consist exclusively in the method of using the thing, or to reside in the mind of its owner, and not to be anything inherent in the thing itself.

But Smith has further subdivided Capital itself. And his distinction is an exact analogy with his distinction between Capital itself and Revenue, namely—it is according to the method of using the thing, and not according to the nature of the thing itself. He divides Capital into *Fixed* and *Floating*; the former being Capital which remains in possession of the Capitalist, and from which he only makes a profit by its use; the latter being that which passes, or floats away from him altogether, and whose value only is replaced to him by the purchaser. Now this distinction is by no means futile or unnecessary; it is attended by the very important consequences. As, for instance, the too rapid conversion of floating into fixed Capital may be productive of very serious inconvenience to a country.

Ricardo, however, has totally missed the true nature of Smith's distinction between fixed and floating capital, and has introduced what Mr. Senior has aptly termed a cross distinction. He says (*Principles of Political Economy and Taxation*, 3rd edit., p. 26,) "According as Capital is rapidly perishable, and requires to be frequently reproduced, or is of slow consumption, it is classed under the heads of circulating, or of fixed capital." Now this is a distinction of a totally different nature from that of Smith, because it makes the distinction reside in the nature of the thing itself. Moreover, as Ricardo says in a note to this very passage, "A division not essential, and in which the line of demarcation cannot be accurately drawn." This last expression is perfectly true. Capital is of all degrees of perishability, and where is the exact line to be drawn between fixed and floating capital? At what degree of perishability does one shade into the other? The *Law of Continuity* shews there can be no such point. The distinction is therefore a false one. The true distinction lies in the *method of use*, and not in the *degree of perishability*. It is quite clear, that if we take Ricardo's distinction, the expression of converting floating into fixed capital, becomes absolute nonsense; whereas, when it is referred to method of use, it is intelligible and of great importance.

Application of the Law of Continuity to the Ricardian System of Political Economy.

We have shewn that Condillac published a treatise in the same year as the *Wealth of Nations* appeared, in which he treated Economic Science as the Science of Commerce, or of Exchanges, and this is the conception of it, which is now becoming general among modern economists. Condillac having formed this conception of it, instinctively from the analogy of Physical Science, never supposed it possible that there could be more than one general Theory of Value. He shews that all variations of value are caused by variations in the intensity of the demand and the quantity of the supply. This treatise, how-

ever, was generally neglected, and Smith's, which was published the same year, shortly attained universal celebrity, and became the principal work on the subject.

Ricardo, the next most influential writer in this country, has nowhere expressly stated, what his conception of the Science was. But it is clear from his work, that the idea of it, which was floating in his mind, was the same as that of Condillac. And this view is now becoming general among economists, and in accordance with this conception, it may be defined to be the Science which treats of the *Laws which Regulate the Exchangeable Relations of Quantities*. The exchangeable relation of any two quantities whatever, being denominated their value with respect to each other.

The object, then, of Political Economy is to ascertain the Laws of Value.

Assuming this to be the case, let A and B be any two quantities whatever, supposed perfectly general, it is quite clear that their exchangeable relations are contained in the following limits:—

$$\begin{array}{rcl} \infty A & = & 0 B \\ \&c. & = & \&c. \\ 2 A & = & \frac{1}{2} B \\ A & = & B \\ \frac{1}{2} A & = & 2 B \\ \&c. & = & \&c. \\ 0 A & = & \infty B \end{array}$$

That is where the exchangeable relation between A and B gradually and continuously changes, from where the greatest possible quantity of A will exchange for the least possible quantity of B, to where the least possible quantity of A will exchange for the greatest possible quantity of B.

Now, the *Law of Continuity*, as stated by Dr. Whewell (*Nov. Org. Renov.*, p. 221), says:—"That a quantity cannot pass from one amount to another by any change of conditions, without passing through all intermediate degrees of magnitude, according to the intermediate conditions."

He also says, p. 223, "The evidence of the Law of Continuity resides in the universality of those ideas which enter into our apprehension of Laws of Nature. When, of two quantities, one depends upon the other, the Law of Continuity necessarily governs this dependence. Every philosopher has the power of applying this law, in proportion as he has the faculty of apprehending the ideas which he employs in his induction, with the same clearness and steadiness which belong to the fundamental ideas of quantity, space, and number. To those who possess this faculty, the law is a rule of very wide and decisive application. Its use is seen rather in the disproof of erroneous views, and in the correction of false propositions, than in the invention of new truths. It is a test of truth rather than an instrument of discovery," which is the true function of all logic.

Now, before we examine any particular laws which have been proposed as regulating particular cases of value, we may affirm, by virtue of the *Law of Continuity*:—

I. *That if it can be indubitably proved that ANY particular law holds good at ANY one point in the range of prices, that same law must necessarily hold good at ALL points throughout the whole range of prices.*

II. *That as the symbols A and B are perfectly*

general, if ANY law whatever can be proved to hold good in the variations of the exchangeable relations of ANY two quantities whatever, that same law must necessarily hold good in the exchangeable relations of ALL quantities whatever.

Thus, by the Law of Continuity we are enabled to affirm:—

That if ANY law whatever can be proved to be true at ANY one point in the range of prices, between ANY two quantities whatever, that same law must be necessarily true at ALL points in the range of prices, and between ALL quantities whatever.

Thus we affirm by virtue of the Principle of the Continuity of Science, and arguing from the analogy of every other physical science, that, however varied and complicated the different phenomena of value may appear to be, there can be no possibility be more than one grand general Theory of Value, whatever it may be.

Now in the progress of the different Physical Sciences, different opinions have been held as to which was the true general Theory of the Science. But no one ever dreamt of supposing that it could be built on more than one general theory, or believed in two fundamentally distinct theories at the same time. In Astronomy there have been the Theory of Ptolemy, and the Theory of Tycho Brahe, and the Theory of Copernicus, all of which may have had their admirers. But no one ever dreamt of believing, or being required to believe, in all these different theories at the same time. No one ever wrote a Treatise on Astronomy, in which one chapter, or class of phenomena, was explained by the Theory of Ptolemy, another class of phenomena by the Theory of Copernicus, and another class of phenomena by the Theory of Tycho Brahe, and three or four other classes of phenomena by as many different theories.

So in Optics, there have been the Emission Theory and the Wave Theory, both of which have had their supporters. But neither party ever thought it possible to believe in both theories at once, or ever dreamt of writing a Treatise on Optics, in which one class of phenomena was explained by one theory, and another class by the other theory.

So, throughout the range of Physical Science, every one knows that it is the very object of induction to obtain the ONE general theory which lies at the base of all the phenomena. To suppose that any Physical Science could be based on a multitude of conflicting theories, would be enough to make the hair of every Physicist stand on end.

And yet this is exactly what Ricardo does. His conception of the nature of the Science is perfectly just, and agrees with that of Condillac. But Condillac never supposed that there could be more than one general Theory of Value, and he shews that all variations of Value are reducible to this single general principle. But how does Ricardo proceed?

In the first place, there are gigantic masses of property which are not even mentioned in his work. But in the comparatively small portion of wealth he does treat of, he says that in one class of cases, the Value of things are governed by the Law of Supply and Demand; in another class of cases, by the Cost of Production of the things themselves; in a third class of cases, by

the Cost of Production of the last quantity raised; in a fourth class, Wages, by a different law altogether. Some of his followers have introduced another Law of Value for a class of cases not mentioned by him; and if we take into consideration that enormous mass of wealth of whose existence he does not appear to be aware, it is necessary to have at least six—probably many more—distinct and contradictory Theories of Value to construct the Science of Economics!

But, more than that, in chap. xxx., he admits that the law of *Supply and Demand* regulates the prices of all commodities for a limited period, and then, at some particular point, it suddenly changes into the law of *Cost of Production*; and then, as price continues to change, it then suddenly goes back again to the law of *Supply and Demand*.

That is to say, that while a quantity is undergoing a continuous change of magnitude, it is subject to a certain law up to one point, at which it is subject to a totally distinct law. As soon, then, as it has passed through this point, it suddenly becomes subject to the other law, and continues so during all the remainder of its changes of magnitude. At the very statement of such a doctrine, it would be instantly condemned by every Physicist.

But Ricardo had before him what every man of science will see to be the true law, and yet he failed to recognise its universality. He quotes from a work of Lord Lauderdale's, entitled *An Inquiry into the Nature and Origin of Public Wealth*, which contains little else of any worth, what is clearly the true general law of Political Economy.

Lord Lauderdale says, p. 12, that of two quantities which may each vary, if we suppose the variation to take place in one of them first, the other remaining the same, its value would be influenced by four causes:—

It would increase in value—

- (1.) *From a Diminution of Quantity.*
- (2.) *From an Increase of Demand.*

It would diminish in value—

- (1.) *From an Increase of Quantity.*
- (2.) *From a Diminution of Demand.*

Now, as the variations of the other quantity will be influenced by the same four causes, it is quite clear that the variations of both quantities will be influenced by eight independent causes, and if these be connected in the form of an algebraical equation, that will be manifestly the true general equation of Political Economy.

Such a general equation must manifestly comprehend the whole science; and as it contains no less than eight independent variables, it at once shews the extremely complicated nature of the science.

Now, Ricardo admits it to be true for all monopolized commodities, and for all others during a limited period. But his want of training in Inductive Science prevented him from seeing that if it be true in any one case, it must be true in all.

The fact is, that the Law of *Supply and Demand*, of which the above extract from Lord Lauderdale is the full expression, is admitted by all Economists to be true when the price of things is very low, and it is also admitted to be true when the price is very high. No other law

whatever but that of *Supply and Demand* operates at the extremes of price; and, therefore, it is manifest, by the *Law of Continuity*, that all intermediate prices must be governed solely by the same Law of *Supply and Demand*. The *Law of Continuity*, therefore, proves that all the proposed distinctions of different classes of cases are utterly false, and to be rejected from a true scientific treatment of the science.

It is quite manifest that the above is the true general equation of Political Economy, and the whole science must be constructed, taking that equation as the basis.

In obtaining this general expression, we have followed the method usual in all physical science. We have obtained the *Independent Variables*, and they are connected in a General Law, or *Formula*. This insures *certainty* in the Science. But it is in the last point that the real difficulty arises, namely, in giving *precision*, or numerical amounts, to the *Coefficients*. It is difficult, probably impossible to say, what numerical variations in supply and demand produce certain numerical variations in price. This has been attempted in some cases, as that of corn, but it is manifestly impossible to obtain exact numerical data.

It is this difficulty, or rather let us say the entire impossibility of giving exact numerical values to the coefficients, that makes many writers suppose it impossible to make Political Economy an exact Science. Thus Professor Cairnes, commenting upon a former statement of ours, shewing why Political Economy might be made an exact science, says that for a science to be an "exact" one, it is necessary that its laws be capable of precise quantitative statement. This, however, is an error which has been specially noticed by Comte (Comte), who well points out the difference between *certainty* and *precision* in science. To constitute an exact science, it is not necessary that the precise numerical laws can be ascertained, but only that the reasoning be exact or certain. In Political Economy the causes of phenomena can be ascertained with positive certainty, and if we want to produce any given effect, the proper method of producing it can be pointed out with absolute certainty. This is all that is necessary to constitute it an exact science, because the method of producing the result being pointed out with certainty, it may be followed until the required result is produced.

These examples, out of many which might be adduced, will serve to shew how the ordinary principles of Inductive Logic may be used to decide controversies, both as to the Conceptions and the Axioms of Political Economy.

CONTRAST,

A, between the rival systems of Banking. By a Country Manager. London, 1846.

The Contrast, or a comparison between our Woollen, Linen, Cotton, and Silk Manufactures, shewing the utility of each, both in a national and commercial view. London, 1782.

COOK, G. H.

Currency Principles and Currency Taxation, a plan by which a large revenue would accrue to the State. London, 1856.

COOKE, EBENEZER.

A plan for equalization and adjustment of the Property and Income Tax. London, 1860.

COOKE, EDWARD, Barrister-at-Law.

Thoughts on the expediency of repealing the Usury Laws. London, 1813.

The real cause of the increased price of the necessaries of life, and of the high price of gold bullion. London, 1813.

COOKE, LAYTON.

Observations on renting and rating railways. London, 1848.

Practical observations on the importation of foreign corn. London, 1826.

A series of statistical Charts, shewing the fluctuations in quantity and value of the products of the soil. London, 1828.

COOKE, WILLIAM, M.A., Vicar of Enford, Wiltshire.

The Medallie History of Imperial Rome. London, 1781.

COOKE, WILLIAM ROBERT.

Joy for England, or paying off the National Debt. London, 1847.

COOPER, COLLINGWOOD.

Decimals and Decimal Coinage. London, 1853.

COOPER, H. G.

Condition of the working classes. Grantham, 1847.

COOPE, J. B.

Retrospect of the trade of Liverpool. Liverpool, 1857.

COOPER, THOMAS.

Lectures on the Elements of Political Economy. Columbia, 1826.

CO-OPERATION. The article on this subject is unavoidably postponed till the end of the letter C.

COOPMAN, LUCIEN.

Refonte de quelques impôts et du cadastre, suivie d'une proposition d'impôt sur les offices, et de la création d'une école administrative. Fontainebleau, 1848.

Représentation agricole, organisation de comices cantonnaux électifs, d'une administration de banques, et caisse d'épargne agricole, &c. Fontainebleau, 1848.

COOTE, SIR CHARLES, Bart., of Donnybrook.

Statistical survey of the County of Armagh. Dublin, 1804.

Statistical survey of the County of Cavan. Dublin, 1802.

Statistical survey of the County of Monaghan. Dublin, 1801.

COPPI, A.

Discorso sulla servitù e sulla libera proprietà dei fondi in Italia. Roma, 1842.

COPYRIGHT is the name of a certain species of incorporeal property.

It is the exclusive right of receiving the profits from publishing and selling works of literature and art.

We have fully explained under **CREDIT** and **PROPERTY**, that property is a right residing in the person, and that there may be property in things which already exist, and also property in things which will only come into existence at a future period. The former is usually called corporeal property, and the latter incorporeal property.

Thus there may be property, or the exclusive right, to use a manuscript, or a printed book, and there may also be the property, or exclusive right, to multiply and sell copies of the manuscript, or book, and appropriate the profits. This latter property is called Copyright, and is manifestly a distinct property from the former.

We have also shewn that every future profit whatever has a present value, which may be bought and sold, like property in any material existing substance. This mass of property receives different names, according to the source of the profit, such as the *goodwill* of a business, the *practice* of a profession, the *patent* of an invention, the *shares* in a commercial company, the *funds*, and *annuities* of all sorts, *credit*, and **COPYRIGHT**.

Now, as economists are agreed that whatever is exchangeable is wealth, it follows that this enormous mass of property is wealth, nay, it is probable that 19-20ths of existing wealth is in this form, and yet there is scarcely one word about it in any English work on Political Economy!

The only English work on Political Economy that we are aware of at present, that even mentions copyright, is Dr. Whately's *Lectures on Political Economy*, p. 6, where he says, "In many cases where an exchange really takes place, the fact is liable (till the attention is called to it), to be overlooked, in consequence of our not seeing any actual transfer from hand to hand of a material object. For instance, when the Copyright of a book is sold to a bookseller, the article transferred is not the mere paper covered with writing, but the exclusive *privilege* of printing and publishing. It is plain, however, on a moment's thought, that the transaction is as real an exchange as that which takes place between the bookseller and his customers, who buy copies of the work."

It is quite clear that Copyright is a species of fixed capital. When a publisher buys the Copyright of a popular work, it is manifest that is part of his capital. When an author produces a work for which there is a popular demand, and whose Copyright is therefore valuable property, he is unquestionably producing wealth.

The introduction of this species of property into Political Economy, which can by no possibility be excluded from it, shews the inconsistency of the fundamental conceptions of many writers. Thus Mr. Mill, who says that everything forms a part of wealth which has a power of purchasing, and therefore admits, by implication, that a Copyright is wealth, speaks of the production of wealth as the extraction of the instruments of human subsistence and enjoyment from the materials of the globe, thereby very

nearly agreeing with Adam Smith's notion of wealth, as the produce of land and labour. But how is a Copyright extracted from the materials of the globe? How is it the produce of land and labour?

It also shows that some theorems which he lays down as fundamental, are not so. Thus he says that all capital is the result of saving. But how is a Copyright the result of saving? He also states as another fundamental theorem, that although saved, and the result of saving, all capital is nevertheless consumed. But how is a Copyright consumed? He says that "Capital is kept in existence from age to age, not by preservation, but by perpetual reproduction, every part of it is used and destroyed, generally very soon after it is produced, but those who consume it are employed meanwhile in producing more." Vol. i., p. 92. But how is Copyright kept in existence by perpetual reproduction? How does the owner of a valuable Copyright consume it, and how is he employed in producing more? These are examples of hasty generalization from too small an induction of facts.

Copyright, we thus see, is a species of valuable property, produced entirely by the demand of the public for works of literature and art. It is thus purely the creation of diffused civilization and education, and could not have any existence, except from the educated taste of the public, and unless there were the means of gratifying it at a moderate expense.

It has been discussed whether there was any Copyright among the ancients. Mr. McCulloch, quoting some well known passages, thinks there was. But we think the passages he alleges do not bear out any such doctrine. Thus he quotes from the prologue to the *Eunuchus* of Terence, who, we are told by Suetonius, received 8,000 sesterces, or £64 12s., for writing the play to be acted at the Megalensian games. This was the largest sum paid to any poet for such a work. This, however, proves nothing as to Copyright. It was a mere payment for writing a play for a particular occasion. Juvenal also speaks of selling a play to an actor (vii., 87). But this is manifestly merely payment for writing a play to be acted, as was usual. This did not refer to Copyright, for the very purpose of the satire is to lament the utter decay of all taste for literature among the Romans. Horace (*Ep.* i., 20, 2; *Art. Poet.* 345) speaks of the *Sosii*, who were his publishers, and Martial (i., 67; iv., 72; xiii., 3; xiv., 194) speaks of Tryphon, who had his works on sale. These cases point to Copyright much more than the others. But yet they are by no means conclusive. They by no means imply that the author received payment for the exclusive right to sell his works. We may well understand that there might be a certain comity of trade that one publisher should not sell another's works; but that does not prove the legal right to prevent him doing so. The real question is,—Could an author, or publisher, bring an action to prevent another from copying and selling his works? Now, if such a property had existed, it would certainly have been mentioned in the Pandects. But there is no mention in them of any such property. There is no name in Roman Law for Copyright. There is no case in Roman Law of any action having been brought to punish the

invasion of such property. Therefore we think the only conclusion is that it did not exist.

It is stated by Bishop Fell, that before the invention of printing, the University of Oxford claimed to have the exclusive right of transcribing and multiplying books by means of writing. This, however, by no means implies Copyright, because it does not imply that the works so copied were the property of the University, but only that they had the monopoly of writing them out.

Soon after the invention of printing, a printer, called the king's printer, was appointed to print papers of state, proclamations, &c. The earliest notice we have of such an appointment is in 1604, when William Faques styles himself "Regius Impressor," in a proclamation against clipped money. Richard Pynson succeeded Faques in this office, and, in 1518, we have the earliest instance in England of Copyright. A speech printed by him has the following colophon:—"Impressa Londini anno verbi incarnati m.d.xviii. idibus Novembria, per Richardum Pynson, regium impressorem, cum privilegio à rege indulto ne quis hanc orationem infra biennium in regno Angliæ imprimat, aut alibi impressam et importatam in eodem regno Angliæ vendat."

During the reign of Henry VIII., these privileges were frequently granted to printers, usually for seven years. Piracy was not long in showing itself. In 1523, Wynken de Worde printed a treatise on grammar by Robert Witinton. The author, in a new edition in 1533, complains that the work had been pirated by Peter Trevers. To prevent this being done to the second edition, he procured the king's privilege for it.

These cases seem to negative the idea that there was then believed to be any such thing as Copyright at Common Law.

All these privileges had been granted to printers, who may probably be supposed to have paid the authors something for their work. In 1630, we have the first instance of Copyright granted to an author. John Palsgrave had published a French Grammar at his own expense, and in consideration of this he received a privilege for seven years.

In 1556, the subject of Copyright was put on a new footing. Complaints were made that many false, seditious, and heretical books, ballads, and rhymes were published. To bring printers more under control, they were incorporated by the name of the Stationers' Company. They were allowed to make bye-laws, and no one but a member of their body was allowed to practise the business of printing in England. In 1558, they received a second charter, and a bye-law was made that every one who printed a work should enter it in their register, and pay a fee; and every one who omitted to do this, or printed a book belonging to another member, was fined. In this year, entries of copies for particular persons begin, and in 1559, there are persons fined for printing other men's copies. In 1573, there are entries of the sales of copy and their price.

Privileges for printing particular works were the legitimate protection of the labour and expense of publication. But with the general spirit

of monopoly which prevailed to such a pernicious extent, patents for the exclusive right to publish all works on particular subjects were granted to various persons. Thus one had the monopoly of printing all books on Common Law; another all catechisms and spelling books; another all music books; another all almanacks, &c. The printers were so injuriously affected by these monopolies, that they petitioned the Queen against them. But meeting with no redress, they disputed the Queen's right to grant these patents, and printed works in defiance of them, and the rules of their own company. Complaints were made to the Privy Council of these irregularities, but they were too much occupied with foreign and domestic troubles, to take any effectual steps to remedy them.

The Queen had, in 1559, issued a proclamation, strictly forbidding any one to publish anything without a licence. In 1566, this proclamation being little regarded, the Star Chamber issued a decree enforcing it, under the penalties of seizure of all books so printed, disability from exercising the trade of printing, and three months' imprisonment. The printers were ordered to give bonds to observe the decree. But they continued to disregard all decrees and penalties, and in 1586, another decree was issued, to restrict the number of printers, and to confine the trade to London, except one press at Oxford, and another at Cambridge. All printers were forbidden to print books contrary to the bye-laws of the company.

A proclamation of the 25th September, 1623, forbade any one to import from abroad any works which were copyright. Another proclamation to a similar effect was published in 1637.

In 1640 the Star Chamber was abolished. All regulations of the press by proclamation, decrees of the Star Chamber, and the powers of the Stationers' Company were declared illegal and void. But the abuses of unlicensed printing were so great, that in 1643, it was ordered that all books should be entered in the register of the Stationers' Company, according to ancient custom. Copyright was thus restored as it stood before. In 1644, Milton published his famous *Areopagitica*, against the licensing Act, but he particularly excepts that part relating to "the just retaining of each man his several copy, which God forbid should be gainsaid." In 1649, an Act of Parliament ordained that any one printing, or reprinting, or stitching, or binding, any books entered in the register of the Stationers' Company, without the consent of the owner, should forfeit all such books, and be fined 6s. 8d. for each. No presses were allowed, except in London, the Universities, York, and Finsbury.

The Statute 1662, cap. 33, re-enacted these provisions, and ordered that a copy of every work printed should be deposited in the King's Library, and each of the Universities. This Act, after several renewals, expired in 1679, and with it expired all legislative penalties for pirating copyright. Accordingly, piracy very soon began to be common, and in 1681, the Stationers' Company passed a bye-law to fine every one so offending in the sum of 12d. for every copy so printed, or imported. In 1684, Charles II. granted a new charter to the Sta-

tioners' Company, in which it was stated,—“That divers brethren and members of the Company have great part of their estates in books and copies, and that for upwards of a century before, they had a public register kept in their common hall, for the entry and description of books and copies.” It then said—“We, willing and desiring to confirm and establish every member in their just rights and properties, do well approve of the aforesaid register,” and—“that every member of the company who should be the proprietor of any book, should have and enjoy the sale, right, power, and privilege and authority of printing such book and copy, as in that case has been usual heretofore.”

The Act of 1662 was revived by the 1 Jac. II., c. 7, for the term of seven years, and renewed till the end of the session of Parliament next after the 13th February, 1692. The booksellers petitioned against it, and eleven peers entered a protest against it, as subjecting all learning and true information to the arbitrary will and pleasure of a mercenary and perhaps ignorant licenser, and destroying the property of authors in their copies.

It appears that at this time the Stationers' Company had been guilty of many malpractices. They sometimes extorted large sums for entering works; sometimes they refused, or neglected, to do so at all. Sometimes they made false entries, or fraudulent erasures, or cut out the leaves in which entries were made, to the confusion of all literary property, which was supposed to rest on the entry in the register.

Attempts were made to renew the Licensing Act, but the Commons resisted, and it finally expired on the 25th April, 1694. The circumstance which brought about the final emancipation of the English press are fully stated by Macaulay.

The opposition of the Commons was to the arbitrary power of the licenser. They clearly thought that the property in Copyright was inherent in the author and his assigns, and well secured by the Charters and Laws of the Stationers' Company. But unfortunately, in abolishing the Licensing Act, they had swept away all statutory penalties for pirating Copyright; and persons whose rights were invaded had no other remedy but for damages at Common Law. Several cases had been before the Courts relating to Copyright, but these all referred to disputed property, none ever questioned the right. In the case of *Roper v. Streater* (Skinner, 234), the Court of Common Pleas held that the plaintiff having purchased it from the executors of the author was owner of the copy at Common Law.

The removal of the statutory penalties for piracy opened the door to the same practices as had been committed before, and in 1694 the Stationers' Company renewed their bye-law of 1681, but with little effect. The recovery of damages at law was so hazardous and uncertain, as most of the pirates were men who had no property sufficient to pay damages, and as it required a separate action for each copy proved to be sold, that it was in practice illusory. In 1703, 1706, and 1709, the owners of copies petitioned Parliament for redress, and security to their properties. They had been so long secured by penalties that it had not occurred to them to proceed by a Bill in Equity, which had never hitherto been attempted

or thought of, except upon letters patent adjudged to be legal.

The petitioners declared that the property of English authors had always been owned as sacred among the traders, and generally forborne hitherto to be invaded. That when the author had conveyed over his copy to any one of them, they had a just and legal property thereunto. That they had given sums of money for copies, and had settled these copies on their wives at marriage, or on their children at their deaths. That many widows and orphans had none other subsistence. That their existing copies had cost them at least £50,000. That this property was the same with houses and other estates. In consequence of these petitions, an Act was passed in March, 1710, for the encouragement of learning, by vesting the copies of printed books in the authors, or purchasers of such copies, during the times therein mentioned. It gave authors of the works then existing, and their assigns, the sole right of printing the same for twenty-one years, from the 10th April, 1710, and no longer. Authors of works not printed, and their assigns, had the sole right of doing so for fourteen years, and no longer. The penalties in the Act were not to be exacted from any one unless the book should be entered in the usual way in the register of the Stationers' Company. If too high prices were put upon books, certain great officers of State might order them to be lowered. The number of copies to public libraries was increased to nine. The libraries of the four Universities of Scotland, Sion College, London, and the Advocates' Library in Edinburgh, were added to those entitled by the Statute of Charles II. If the authors were alive at the end of the first fourteen years, they received a prolongation of their privilege for another fourteen years. All penalties under the Act were to be sued for within three months after the offence was committed. Nothing in the Act was to prejudice or confirm any right that the Universities, or any person or persons, had, or claimed to have, in the printing or reprinting any book, or copy, already printed, or hereafter to be printed.

We thus see that, with that tender regard for the interests of the robe, which Parliament displays, they carefully avoided pronouncing any decision at all with regard to the right of copy at Common Law, but took care to leave the door open for a plentiful crop of litigation.

It is quite impossible to read this Act without seeing that it distinctly recognizes Copyright as existing already, and independently of the Act. All they did was to enact certain statutory penalties for its infringement. But that, by a well known rule of law, in no way affected proceedings at Common Law. We have seen that the courts of law never raised the slightest doubt as to the existence of Copyright at Common Law. We shall now see how the Court of Chancery regarded it.

As the Act gave twenty-one years for old copies from the 10th of April, 1710, no question on Copyright at Common Law could arise before 1731. In 1735, Sir Joseph Jekyll granted an injunction in the case of *Eyre v. Walker*, to restrain the defendant from printing the *Whole Duty of Man*, the first assignment of which had been made in December, 1657, being seventy-eight years before.

In the same year, Lord Talbot, in the case of *Matte v. Falkner*, granted an injunction restraining the defendant from printing *Nelson's Festivals and Fasts*, printed in 1703, during the life of the author, who died in 1714.

In 1739, Lord Hardwicke, in the case of *Tonson and Another v. Walker*, otherwise *Stanton*, granted an injunction restraining the defendant from printing *Milton's Paradise Lost*, the Copyright of which was assigned in 1667, or seventy-two years before. In 1752, Lord Hardwicke, in the case of *Tonson v. Walker and Merchant*, granted an injunction, restraining the defendants from printing *Milton's Paradise, or Life, or Notes*.

All this time there had never been any solemn decision by the King's Bench as to the existence of Copyright at Common Law, or as to how it was affected by the Statute of Anne. But the Court of Chancery never granted an injunction unless the legal right was clear and undisputed. If there had been any doubt about it, they would have sent it to be argued in a Court of Common Law.

At last the question was brought before the King's Bench, in the case of *Tonson v. Collins*, but after it had gone into the Exchequer Chamber, and the leaning of the Court was clearly in favour of the plaintiff, it was discovered that it was in fact a collusive action, got up merely to obtain the judgment of the court, and they thereupon refused to proceed with it. While this action was pending, applications to the Court of Chancery for an injunction were refused, until the result of the Common Law action was decided. Lord Mansfield said that he looked upon these injunctions as equal to any final decree, because they were never granted unless the legal property of the plaintiff was made out.

At length, in 1769, the question was solemnly argued before the King's Bench in the famous case of *Millar v. Taylor*. Millar had purchased from Thomson the copyright in the *Seasons*, which were published in 1728, and therefore if the right existed only by statute, it expired in 1756. Taylor published an edition in 1763, and Millar brought an action for damages against him in 1769. It, of course, cannot be expected that we should give an outline of the arguments in this celebrated case. It is sufficient to say that three of the judges, Lord Mansfield, and JJ. Aston and Willes, held that every author had by Common Law, a perpetual copyright in his own works, quite independent of the statute. Yates, J., held that there was no such property at Common Law. The plaintiff therefore got the judgment, and in Trinity Term, 1770, the Lords Commissioners granted an injunction.

In 1774, however, the question was again raised. In the case of *Beckett v. Donaldson*, the plaintiff had obtained an injunction founded on the decision in the case of *Millar v. Taylor*. The case was immediately carried by appeal to the House of Lords, when the House proposed the following questions to the judges :—

I. Whether at common law an author of any book, or literary composition, had the sole right of first printing and publishing the same for sale, and might bring an action against any person who printed, published, and sold the same without his consent ?

Upon this question, JJ. Nares, Ashurst, Blackstone, Willes, Aston, Perrot, and Adams ; Smythe, C.B., and De Grey, C.J. of the Common Pleas, held the affirmative ; Eyre, B., held the negative.

II. If the author had such right originally, did the law take it away upon his printing and publishing such book, or literary composition ? And might any person afterwards reprint and sell for his own benefit such book or literary composition, against the will of the author ?

Upon this question Judges Nares, Ashurst, Blackstone, Willes, and Aston, and Smythe, C.B., held the affirmative ; Eyre, Perrot, Adams, and De Grey, C.J., held the negative.

III. If such action would have held at Common Law, is it taken away by the Statute 8 Anne, c. 19 ? And is an author by the said statute precluded from every remedy, except on the foundation of the said statute, and the terms and conditions prescribed thereby ?

Upon this question Judges Eyre, Nares, Perrot, Gould, and Adams, and De Grey, C.J., held the affirmative. Judges Ashurst, Blackstone, Willes, Aston, and Smythe, C.B., held the negative.

IV. Whether the author of any literary composition, and his assigns, had the sole right of printing and publishing the same in perpetuity by the common law ?

Upon this question Judges Nares, Ashurst, Blackstone, Willes, Aston, and Gould, and Smythe, C.B., held the affirmative. Judges Eyre, Perrott, Adams, and De Grey, C.J., held the negative.

V. Whether this right is any way impeached, restrained, or taken away, by the statute of 8 Anne ?

Judges Eyre, Nares, Perrott, Gould, and Adams, and De Grey, C.J., held the affirmative. Judges Ashurst, Blackstone, Willes, and Aston, and Smythe, C.B., held the negative.

Upon these answers, the decree of the Court of Chancery was reversed, on the motion of Lord Camden, seconded by the Lord Chancellor, by a majority of 22 to 11.

By this majority of a single judge this momentous question was decided. It will be observed that it was brought about by two judges, Nares and Gould, who voted that an author had perpetual Copyright by Common Law, leaving their side, and voting that this perpetual right was taken away by the statute.

Such an opinion seems to us to be incomprehensible. Modern opinion has confirmed the judgment of the minority, that there is no such thing as Copyright at Common Law. But how judges, who held that Copyright did exist at Common Law, could hold that it was taken away by the statute of Anne, seems past understanding, for there is a clause expressly enacting that the statute should in no way whatever affect pre-existing rights.

Right or wrong, however, this judgment declared that the practice of two centuries, and the deliberate opinion of all the courts of law and equity during that period, were erroneous, and henceforward Copyright had nothing but statute law to support it.

Authors, publishers, and the universities were taken by surprise at this unexpected decision of the House of Lords, destroying what they

imagined was their inviolable property. The universities immediately took the field, and in 1775 an Act was passed (15 Geo. III., c. 53), which granted to both the universities in England, and to each of the Colleges therein, to the Colleges of Eton, Westminster, and Winchester, and to the four Universities of Scotland, perpetual copyright in all works that should be bequeathed to them, so long as they should print them at their own presses, and not assign them over to any one else. They nevertheless might sell them to any one they pleased, in the same manner as any individual author.

And here we may observe that a very curious question might arise. It is a plain maxim of law that a man cannot grant, or assign to another, a greater estate, or interest, than he possesses himself. But here is a manifest exception to this rule. An author has only a very limited interest in his own works, according to the present law, only forty-two years, or his own lifetime, whichever is the longest. Hence he can only assign over that interest to any private person. But if he assign this copyright to any university or college named in the Act, it becomes an estate in perpetuity. Therefore, he has clearly assigned a greater estate than he himself possesses. Again, this question might arise. Suppose an author assigns over his Copyright as above, which immediately becomes perpetual by force of law, and suppose the college, or university, sell this Copyright, which has now become perpetual, to an individual.—Is the copyright perpetual, or limited?

The booksellers also petitioned the House of Commons on the 28th of February, 1774, stating that in the full belief of the perpetuity of Copyrights, they had invested large sums in their purchase, and that the support of many families depended on the same, and prayed for such relief as the House might deem proper. A bill was brought in for this purpose, but rejected. In 1798, a new point was raised in the case of *Beckford v. Hood*. The plaintiff had published a work anonymously, and sued for damages for the piracy of it. The defendant contended that no action lay for damages since the statute of Anne, which gave penalties, and that the author had lost his right by publishing his work anonymously, and not entering it on the Stationers' register, as prescribed by the Act. The court, however, by one of those skilful examples of hair-splitting, where plain sense is against them, gave judgment for the plaintiff. The judgment, however, was so manifestly weak, that an Act was brought in to bolster it up (41 Geo. III., c. 107), and authors and their assigns were allowed to bring actions on the case for damages for pirating their works during the currency of the privilege granted by the statute of Anne. Trinity College, and the King's Inn, Dublin, were also added to the list of those places which were entitled to pillage authors of their works. Trinity College also received the right of holding Copyrights in perpetuity, like the English and Scotch Universities and Colleges.

By an Act passed in 1814 (54 Geo. III. c. 156) the copies of printed books were required only to be delivered on demand, within twelve months of their publication. The author's copyright was extended to twenty-eight years certain, and for

the remainder of his life, if he survived that period. The grievance of every author being mulcted in eleven copies of his work, was complained of in Parliament several times, but nothing was done till 1836, when Mr. Buckingham brought in a bill which was passed, which enacted that the rights of Zion College, the four Universities of Scotland, and the King's Inn, Dublin, should cease, upon receiving compensation, which was to be expended in the purchase of works. By this Act, the number of presented copies was reduced to five.

At last, Serjeant (afterwards Mr. Justice) Talfour appropriately took up the subject of Copyright, and brought the subject before the House of Commons. The discussion extended through several sessions, and his bill having been considerably modified, was passed in 1842, as the 5th and 6th Vic. c. 45. This Act repealed the 8th Anne, c. 19: the 41 Geo. III. c. 107; the 51 Geo. III. c. 156, and is now the one which regulates the subject of literary Copyright. By this Act, the word "Book," is to mean every volume, or part thereof, Pamphlet, Sheet of Letterpress, or Music, Map, Chart, or Plan separately published. The Copyright in every such book published, in the lifetime of the Author, is to last for his lifetime and seven years after; but if such term elapse before the end of forty-two years from the publication of the work, then the Copyright shall exist for forty-two years. If the book is published after the Author's death, the Copyright is to last for forty-two years, and shall belong to the owner of the author's manuscript from which it is first published. If the proprietor of such Copyright refuse to publish it, the Judicial Committee of the Privy Council may authorize it. One copy of every such Book to be delivered at the British Museum. The Libraries at Oxford, Cambridge, the Advocates' at Edinburgh, and Trinity College, Dublin, may have one copy on demand. Articles in Encyclopædias, Magazines, and Reviews, and periodicals, are subject to the same Copyright as Books, except that the Copyright of articles in Reviews, Magazines, and periodicals, reverts to the author after twenty-eight years, for the remainder of the term. Subsequent provisions were made for preventing the importation into British possessions of the works of British Authors, in which Copyright still subsists.

The next subjects which received Copyright from Law, were prints and engravings. The Acts relating to this, are the 8 Geo. II. c. 13; the 7 Geo. III. c. 38; the 17 Geo. III. c. 57, and the 15 & 16 Vic. c. 12. By these Acts, the Copyright in Prints, Engravings, Lithographs, and all such works of Art, is given for twenty-eight years from the day of publication.

By the 27 Geo. III. c. 38, Copyright was given in the designing and printing of manufactures; this Act was modified and extended by subsequent Acts. The present Acts on the subject are the 5 & 6 Vic. c. 100; the 6 & 7 Vic. c. 65; the 13 & 14 Vic. c. 104; and the 20 & 22 Vic. c. 70. By these Acts, designs in manufactures are divided into various classes, and various terms are allowed for the Copyright of Designs in each. For designs for ornamenting articles in metal; wood; glass; earthenware, and other solid substances; paper hangings; carpets, including floor and oil-cloths; shawls, unprinted; linen fabrics with pattern, printed; woven damasks; the term is three years.

For shawls, printed; yarn, thread, or warp; nine months.

For woven fabrics, unprinted; lace, and all other articles, twelve months.

For the shape or configuration of articles of utility, three years.

By the 38 Geo. III. c. 71; and 54 Geo. III. c. 56, Copyright was granted for sculptures, models, and casts, for fourteen years from the time of first publication; and to the author, if living at the end of that term, fourteen years more.

By the 3 & 4 Wm. IV. c. 15, the term of Copyright granted to authors by the 54 Geo. III. c. 156, was extended to the Author of Dramatic compositions of all sorts; publication in this instance being interpreted as representing at a place of dramatic entertainment, and a similar extension was granted by the 5 & 6 Vic. c. 45, and its provisions extended to musical compositions.

By the 5 & 6 Wm. IV. c. 65, the author of any lectures, or the person to whom he might assign the Copyright in them, was to have the sole right of publishing them. No Newspaper editor is to publish them without leave. And no person who is allowed to attend them is to have the right to publish them. If, however, they are published, the Copyright lasts for twenty-eight years. To secure this Copyright, however, notice must be given to two Justices of the peace within five miles of the place where they are to be delivered, two days beforehand. And it does not extend to lectures delivered in unlicensed places, or in public schools and colleges.

International Copyright was first granted by the 1 & 2 Vic. c. 59; but this Act was repealed by the 7 & 8 Vic. c. 12, further amended by the 15 Vic. c. 12. By the first of these Acts, the Queen in Council was permitted to grant to the authors of original foreign works, such term of Copyright in the British dominions as she pleased, not exceeding the term allowed for similar works in this country. By the latter Act, the Queen in Council may grant a Copyright of five years for an authorised translation of foreign works; and also may prohibit for a similar period, the representation of an unauthorised translation of a foreign dramatic piece.

Such is the history and present state of the laws regarding Copyright in this country.

We may mention that the copyright in private letters remains in the writer after transmission; and the receiver of them, and his representatives, have no right to publish them, without the consent of the writer or his representatives.

Copyright in France, as is stated in the *Dictionnaire de l'Economie Politique*, was conferred by the grant of the sovereign, as in England, and sometimes for a limited period. The ancient law was contained in the *Ordonnance de Moulins* of 1566, a declaration of Charles IX. in 1571, and the Letters Patent of Henry III. Usually no limit was fixed to the duration of Copyright, but when a perpetual Copyright was granted, it was always under the condition that it should not be parted with to booksellers. If so, it ceased with the author's life. Several edicts in 1618, 1665, 1682, 1686, and 1723, enacted corporal and pecuniary punishments against pirates.

The revolution of 1789 changed this. Copyright was granted as a right to every one, but its duration was limited. According to existing laws,

the Copyright is vested in an author and his wife during their respective lives, and to their children for twenty years afterwards. If they have none, their heirs have it for ten years. In dramatic pieces, the widow has the same as the children, twenty years.

According to the same authority, the Copyrights in different countries are as follows.

Before the union of Holland and Belgium, Copyright was perpetual in Holland. In 1817, the French law was adopted in the United country, and is now continued in each separately.

In the Zollverein, the Prussian law has been adopted, which gives Copyright to the author during his life, and to his heirs for thirty years after.

This law was adopted in Austria in 1846.

In Russia it belongs to the author for life, and to his heirs for twenty-five years. But if they have published a new edition within five years of the expiry of this term, it is prolonged for ten years.

In Sardinia it lasted only for fifteen years. In 1846, a convention was agreed to with France, by which the benefits of French law were extended to the subjects of both nations. We believe that a new convention has been recently concluded between these two countries regarding literary property.

In Portugal, the law is the same as that of Germany.

In Spain, according to the present law, authors have the Copyright for their lives, and their heirs for fifty years after.

Prussia was the first country which set the example of granting international copyright. In 1837, a law was passed that every country might secure Copyright for its authors in Prussia upon granting reciprocity. This was followed by England in 1838. In consequence of these, several international treaties of Copyright have been negotiated. France, however, has set the example, under the Emperor Napoleon III., by a law of the 28th March, 1852, of forbidding the piracy of books and works of art published abroad, without requiring reciprocity. It is said, too, that steps are about to be taken to make copyright perpetual.

COQ. PAUL, born at Bordeaux, chief editor of *La Semaine*, a weekly review.

Le Sol et la Haute Banque, ou les intérêts de la classe moyenne. Paris, 1850.

COQUELIN, CHARLES, born at Dunkirk, the 27th November, 1805. Became a distinguished writer on Political Economy, both in the *Revue des deux Mondes*, and the *Journal des Economistes*, in which he published a great number of articles on banking, credit, circulation, railways, canals, corn laws, money, &c., &c. He was one of the members of the council of the Free Trade Association, and one of the editors in chief of the excellent French *Dictionnaire de l'Economie Politique*, published by Guillaumin in 1854. M. Coquelin died recently. He has also published as separate works:—

Du Crédit et des Banques. Paris, 1848.

Traité de la filature de lin. Paris, 1845.

COQUEREAU, JEAN BAPTISTE LOUIS. Advocate.

Mémoire concernant l'administration des finances sous le ministère de l'Abbé Terray. London, 1776.

CORBAUX, FRANÇOIS.

Dictionnaire des arbitrages simples, considérés par rapport à la France dans les changes entre les villes commerçantes. Paris, 1802.

The doctrine of compound interest illustrated, and applied to perpetual annuities. London, 1825.

A further inquiry into the present form of our national debt, and into the means and prospect of its redemption. London, 1824.

On the natural and mathematical laws concerning population, vitality and mortality. London, 1833.

CORBET, THOMAS.

An Inquiry into the causes and modes of the Wealth of Individuals, and the principles of Trade and Speculation explained. London, 1841.

CORDIER, A. and FOUCHÉ, VICTOR.

Plus d'impôts! Plus de droits réunis! Organisation du Crédit par l'état. Marseilles, 1848.

CORDIER, JOSEPH, Divisional Inspector of Roads and Bridges, born at Orgelet, in the Jura, in 1784. A voluminous writer. Among his works, those relating to Economic subjects, are—

Mémoire sur l'agriculture de la Flandre française, et sur l'économie rurale. Paris, 1823.

Considérations générales sur la législation des travaux publics. Paris, 1829.

De la nécessité d'encourager les associations et de les appeler à l'exécution des travaux publics. Paris, 1830.

Considérations sur les chemins de fer. Paris, 1830.

Mémoire sur les travaux publics. Paris, 1841.

La France et l'Angleterre, ou recherches sur les causes de prospérité et les chances de décadence des deux nations, et propositions de réforme. Paris, 1843.

CORMENIN, LOUIS MARIE DE LA

HAYE, Viscomte de, born at Paris 6th January, 1788. Joined the Bar in 1808; *Auditeur* to the Council of State in 1810; Master of Requests in 1814; a Deputy in 1828, and Member of the Constituent Assembly in 1848.

Entretiens de Village. Paris, 1846.

Questions des subsistances. Paris, 1849.

CORNIANI, GIOVANNI BATTISTA, born in 1742, at Orzi Nuovi, in the Bresciano, filled an office in the magistracy of that town with credit. He wrote several works, which were much esteemed, among others, *Secoli della letteratura Italiana*. Unfortunately for his reputation, he dabbled in Political Economy, and wrote two small treatises on agriculture and money, in which he adopted the opinions of the Physiocrats, and maintained that it might sometimes be advantageous to tamper with the currency. He died in 1813. Custodi has included his tracts in his collection, though it is difficult to see why, except from regard to the author.

Della legislazione relativamente all'agricoltura. Brescia, 1777.

Riflessioni sulle monete. Brescia, 1796.

CORPORATION, See MONOPOLY.

CORTI, ADOLFO.

Elementi della Scienza del Commercio. Pavia, 1829.

CORVAJA, GUISEPPE, Baron.

Progetto di un banco nazionale svizzero. Capolajo, 1841.

Progetto d'una cassa di risparmio agricola ed industriale. Capolajo, 1841.

Sulle strade ferrate in Italia. Capolajo, 1841.

L'uno per cento, o il perno del credito finanziario della nazione Francese. Capolajo, 1841.

COSMOPOLITE.

A concise Treatise on the Wealth, Power, and Resources of Great Britain. London, 1833.

Free-Trade and no Colonies. Edinburgh, 1848.

COSSIGNY.

Finances. Réflexions sur le plan d'une banque territoriale, par le Citoyen Ferrières. Paris, 1797.

COST OF PRODUCTION. Any one who was acquainted with the methods of investigation pursued in Physical Science, since the days of Galileo, would know that there could only be one grand general theory at the basis of every science, which must account for all the phenomena. In different physical sciences, there have been severe controversies as to which was the true theory, but no one ever supposed that there could be more than one. The partisans of each theory were perfectly aware that it was conquest or death for it, and they never dreamt of coming to a compromise, and agreeing that one class of phenomena should be explained by means of one theory, another class by means of another theory, a third, fourth, fifth, and sixth class, by a third, fourth, fifth, and sixth theory.

This, however, is the method of investigation followed by a number of eminent Economists. To a certain extent it appears in Adam Smith, but it is Ricardo chiefly who adopts this plan, and he has a number of influential followers, the least we can say of whom is that they ought to know better.

Ricardo divides commodities into several classes, and he endeavours to discover a law of value for each. We shall not enter into all of these here, because that is fully done under RICARDO and PRICES, THEORY OF, but we shall only notice three of these classes. He says that there is one class of commodities, whose quantity cannot be increased by labour, such as rare statues, and pictures, books, and coins, and some other things, whose value is governed by the law of supply and demand. Another class of those which may be multiplied to any extent that may be desired, and on the production of which, competition operates without restraint. He says, that *Cost of Production* regulates the value of this class of commodities. There is a third class of commodities, which are produced by varying costs of production, such as corn, metals, coals, &c. In this class, he says the cost of producing the quantity raised at the greatest expense, regulates the value of the whole.

To this method of investigation, Mr. J. S. Mill adheres. He says (B. III. c. ii. s. 4), "This, then,

is the Law of Value (i. e. *Supply and Demand*) with respect to all commodities not susceptible of being multiplied at pleasure. Such commodities, no doubt, are exceptions. There is *another* law for that much larger class of things, which admit of definite (? indefinite) multiplication." And at p. 550, he says, he will—"examine the case of commodities which can be increased in quantity indefinitely and at pleasure, and determine by what law, *other than that of Demand and Supply*, the permanent or average values of such commodities are regulated." And at p. 575, "the value of an article (meaning its natural, which is the same thing with its average value) is determined by the cost of that portion of the supply which is produced and brought to market at the greatest expense. This is the Law of Value of the third of the three classes into which all commodities are divided."

To this we can only say that such a method of proceeding would horrify any Physicist.

Before, however, shewing the erroneousness of these doctrines, we must first inquire what *Cost of Production* is.

Smith (B. I. c. vi., *Of the Component Parts of the Price of Commodities*) says, that the price of all commodities is composed of three parts, Wages, Profit, and Rent.—"Wages, Profit, and Rent are the three original sources of all revenue, as well as of all exchangeable value." Again,—*"In a civilised country there are but few commodities of which the exchangeable value arises from labour only, rent and profit contributing largely to that of the far greater part of them."*

And in the next chapter, *Of the Natural and Market Price of Commodities*, he says, that in every neighbourhood there is an ordinary or average rate of wages, profit, and rent.—*"When the price of any commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labour, and the profits of the stock employed in raising, preparing, and bringing it to market, according to their natural rates, the commodity is then sold for what may be called its natural rate. The commodity is then sold precisely for what it is worth, or for what it really costs the person who brings it to market."*

He then says that though profit is not in common language included in prime cost, yet if he does not sell it at ordinary profits, he is a loser by his trade, and, therefore, unless he receives it, he will not continue to produce it.

In the passages above cited, Smith makes rent a part, or a cause of price, and a component part of Cost of Production. The practical meaning of which is, that if rents rise prices must rise too, and that if rents fall, or were abolished, prices would fall by the amount.

But in chapter xi. *Of the Rent of Land*, he asserts exactly the contrary:—"Rent, it is to be observed, enters into the composition of the price of commodities in a different way from wages and profit. *High or low wages and profit are the causes of high or low price; high or low rent is the effect of it.* It is because high or low wages and profit must be paid in order to bring a particular commodity to market, that its price is high or low. But it is because its price is high or low, a great deal more, or a very little more, or no more, than what is sufficient to pay those wages

and profit, that it affords a high rent, or a low rent, or no rent at all."

Now, this is a point of no slight practical importance. Many have supposed that, because landlords receive high rents for their lands, that increases the price of bread, and that if rents were abolished, bread would be so much the cheaper. Subsequent writers, however, and especially Ricardo, have shown that this is a complete error; that rent comes out of price, and that no reduction would take place in the price of corn, although landlords should forego the whole of their rent. Such a measure would only enable some farmers to live like gentlemen, but would not make corn one fraction the cheaper. All economists are, therefore, now agreed that the payment of rent in no way whatever influences the price of agricultural produce. This doctrine may do good service in a political point of view, as showing that the odium which some ill-informed people entertain against landlords is unfounded. With respect, however, to commodities in shops, the case is different, as we have fully shown under *RENT*.

Ricardo, who probably invented the expression *Cost of Production*, meant by it the quantity of labour which has been bestowed on the production of a commodity. Now, as Ricardo and Smith themselves admit, quantities of different kinds of labour cannot be compared together. The only way of comparing them is according to their remuneration, or wages. Wages are, therefore, unquestionably, part of Cost of Production. But the question is whether profits ought to be held to be part of it. Smith, we have seen above, says that Profits ought to be included in Natural Price, which is equivalent to Cost of Production, because, if no profits were made, production would cease. Ricardo, in his 3rd edition, admits that Profits are to be included under that term. James Mill, who resolved all value into labour, makes profits to be included under labour.

Colonel Torrens refuses to consider profit as forming one of the elements of Cost of Production. He says—"Those writers who contend for the general equality of market and natural price, include the customary rate of profit under the term natural price, or cost of production. But this classification is highly unphilosophical and incorrect. The profits of stock never make any part of the expense of production; they are, on the contrary, a new creation, brought into existence in consequence of this expense. The farmer, we will suppose, expends 100 quarters of corn in cultivating his fields, and obtains in return 120 quarters. In this case 20 quarters, being the excess of produce above expenditure, constitute the farmer's profit; but it would be absurd to call this excess, or profit, a part of the expenditure. The expenditure, or cost of production, was 100 quarters. It has now been repaid with a surplus of 20 quarters; and unless the surplus which remains after the expenditure is replaced by a part of the expenditure, unless, in fact, 120 quarters be equal to 100, it is impossible that market price should be equivalent to natural. Supposing that corn is £3 per quarter, then in the case we have stated, the natural price of the farmer's produce, or the 100 quarters expended on production, will be equivalent to £300; while the produce of 120 quarters obtained in return will be equivalent to

£360. The excess of market above natural price, or cost of production, is profit; and to contend that this profit is included in the cost of production, is the same thing as contending that the 100 quarters, or £300 laid out on cultivation, are equal to the 120 quarters, or £360 thereby obtained.

"In manufacturing, as well as in agricultural industry, the profit of stock is distinct from the cost of production. The master manufacturer expends a certain quantity of raw material, of tools and implements of trade, and of subsistence for laborers, and obtains in return a given quantity of finished work. This finished work must possess a higher exchangeable value than the materials, tools, and subsistence, by the advance of which it was obtained; otherwise the master could have no inducement to continue his business. Manufacturing industry would cease if the value produced did not exceed the value expended. But it is the excess of value which the finished work possesses above the value of the materials, implements, and subsistence expended, that constitute the master's profit; and therefore we cannot assert that the profit of his stock is included in the cost of production, without affirming the gross absurdity that the excess of value above expenditure constitutes a part of expenditure. Supposing that the materials, tools, and subsistence cost £300, and that the finished work is worth £360, then the difference will be the master's profit; and we cannot maintain that the annual profit is included in the amount of expenditure, or cost of production, without urging the contradiction that £300 are equal to £360.

"The profit of stock, so far from forming any part of the cost of production, is a surplus remaining after this cost has been completely replaced. In carrying on their business, the farmer and manufacturer do not expend their profit, they create it. It forms no part of their first advances; on the contrary, it forms a part of their subsequent returns. It could not have been employed in carrying on the work of production, because, until this work was completed, it had no existence. It is essentially a surplus, a new creation, over and above all that is necessary to replace the cost of production, or, in other words, the capital advanced." Mr. Senior says, that Col. Torrens is just in his criticism on this expression, and allows that profit is not a means but a result. But he says that Col. Torrens has erred by omitting to substitute abstinence, or some equivalent expression, for profit. He then says that *Cost of Production* means the sum of labour, and abstinence necessary for production. But as he defines wages to be the reward of labour, and profit the reward of abstinence, he in fact makes *Cost of Production* to consist of Wages and Profits; though he says that Col. Torrens is right in refusing to make profits an element in the expression.

Mr. J. S. Mill makes quantity of labour and profits to be the natural and necessary elements of *Cost of Production*.

There is an element, too, which he rightly says is a casual one, namely taxes. All taxes laid on the article itself, such as customs and excise, are manifestly part of the expense of Production.

And here we see how Ricardo, and many other economists, are inconsistent with themselves. They

justly say, that Rent has no influence on the price of agricultural produce. But it is quite manifest that Tithes are exactly of the same nature as Rent, and that the influence of Rent and Tithes must be exactly the same. Nevertheless, while these writers see justly enough, that Rent is a mere share of the profits, and cannot influence price, they consider Tithes to be a tax on the produce, and therefore that they raise its price to the consumer. But this is manifestly an error. Rent and Tithes are both a *share* of the produce and not a *tax* upon the produce. They must therefore both be excluded from *Cost of Production*—(RENT; TITHES).

Now with respect to the question whether Profits should be included in the term *Cost of Production*, it appears to us that Col. Torrens has the better shew of reason. Adam Smith himself clearly allows that profits are no part of prime cost. Production is the placing any quantity in a required place, and no doubt, unless there were profits anticipated, production would cease. But profits, as it appears to us, are the inducement to produce, but not part of the cost of producing. It seems better to restrict the expression, *cost of production*, strictly to what mercantile men call prime cost. The profits are the difference between prime cost and market price.

Some Economists, too, are anxious to discriminate between the quantity of labour and the wages of labour. They say that the wages of labour have no influence on price, but only the quantity of labour. We cannot agree in this. Quantities of different kinds of labour cannot be compared together. The only way an employer can appreciate quantities of labour, is by means of the sum he pays for it, or by wages. The only way he can know whether he has made a profit, is by seeing whether he has received more money for the finished article than he expended on producing it.

These considerations, however, in no way affect the questions we are now going to discuss, because whichever way we look at it—and there are, we admit, very plausible reasons for looking at it either way—it is fully admitted that unless profits are made, production must cease. Consequently the profits may be regarded as a constant quantity which do not affect variations of value.

The question now to be discussed is this. Ricardo divided exchangeable quantities into several distinct classes, and for each class he lays down a separate and distinct law of value. And in this he has been followed by many writers since, and particularly by Mr. Mill. Now this is what would never be permitted in any other physical science whatever, and we have now to investigate whether it is a correct mode of reasoning in Political Economy.

Ricardo says, chap. xxx.—"It is the cost of production which must ultimately regulate the price of commodities, and not, as has often been said, the proportion between the supply and demand; the proportion between supply and demand may, indeed, for a time, affect the market value of a commodity, until it is supplied in greater or less abundance, according as the demand may have increased or diminished, but this effect will be only of temporary duration. * * *

"The opinion that the price of commodities depends solely on the proportion of supply to demand, or demand to supply, has become almost

an axiom in political economy, and has been the source of much error in that science."

He then quotes the doctrine of Say that supply and demand regulate prices at all times, but that cost of production is a limit below which they cannot remain for any length of time, because production would then be either entirely stopped or diminished. And Lord Lauderdale's doctrine, (which we have stated under CONTINUITY, LAW OF; PRICES, THEORY OF) and he says—"This is true of monopolized commodities, and, indeed, of the market price of all other commodities for a limited period. If the demand for hats should be doubled, the price would immediately rise, but the rise would only be temporary; unless the cost of production of hats, or their natural price, were raised. If the natural price of bread should fall 50 per cent. from some great discovery in the science of agriculture, the demand would not greatly increase, for no man would desire more than would satisfy his wants, and as the demand would not increase, neither would the supply; for a commodity is not supplied merely because it can be produced, but because there is a demand for it. Here, then, we have a case where the supply and demand have scarcely varied, or if they have increased, they have increased in the same proportion; and yet the price of bread will have fallen 50 per cent., at a time, too, when the value of money had continued invariable.

"Commodities which are monopolized, either by an individual, or by a company, vary according to the law which Lord Lauderdale has laid down; they fall in proportion as sellers augment their quantity, and rise in proportion to the eagerness of the buyers to purchase them, their price has no necessary connection with their natural value; but the prices of commodities which are subject to competition, and whose quantity may be increased in any moderate degree, will ultimately depend, not on the state of demand and supply, but in the increased or diminished cost of their production."

Mr. J. S. Mill agrees in this doctrine. We have shewn above that he says that there is a law different from supply and demand, which regulates the permanent or average values of the class of commodities we are considering. And in agreement with Ricardo he says,—"It is, therefore, strictly correct to say, that the value of things which can be increased in quantity at pleasure, does not depend (except accidentally, and during the time necessary for production to adjust itself) upon demand and supply; on the contrary, demand and supply depend upon it."—"To recapitulate, demand and supply govern the value of all things which cannot be indefinitely increased; except that, even for them, when produced by industry, there is a minimum value determined by cost of production. But in all things which admit of indefinite multiplication, demand and supply only determine the perturbations of value, during a period which cannot exceed the length of time necessary for altering the supply."

Our readers will observe Mr. Mill's reasoning. He says that the value at *any* particular time is the result of supply and demand; the plain meaning of which is, that the value at *all* times is the result of supply and demand. And then he goes to search for a law other than demand

and supply, which regulates their permanent value! That is to say, their permanent value is regulated by a different law from that which regulates it at all times!

Malthus, who was a good mathematician, naturally felt that Ricardo's method of reasoning was inadmissible. He says (*Principles of Political Economy*, p. 71.)—"It has been shown that no change can take place in the market prices of commodities, without some previous change in the relation of the demand to the supply; and the question is, whether the same position is true in reference to natural prices? This question must of course be determined by attending carefully to the nature of the change which an alteration in the cost of production occasions in the state of the demand and the supply, and particularly to the specific and immediate cause by which the change of price which takes place is effected.

"We all allow, that when the cost of production diminishes, a fall of price is almost universally the consequence; but what is it specifically, which forces down the price of the commodity? It has been shown in the preceding section, that it is an actual or contingent excess of supply.

"We all allow that when the Cost of Production increases, the prices of commodities rise. But what is it specifically, which forces up the price? It has been shown that it is an actual or contingent failure of supply. Remove these actual or contingent variations of the supply; that is, let the extent of the supply remain exactly the same, without excess or failure, whether the cost of production rises or falls; and there is *not the slightest ground for supposing that any variation of price would take place.*

"If, for instance, all the commodities which are produced in this country, whether agricultural or manufactured, could be produced during the next ten years without labour, but could only be supplied exactly in the same quantities as they would be in the actual state of things; then, supposing the wills and means of the purchasers to remain the same, there cannot be a doubt that all prices would also remain the same. But if this be allowed, it follows that the relation of the supply to the demand is the dominant principle in determination of prices, whether market or natural, and that the cost of production can do nothing but in subordination to it, that is, merely as it affects the ordinary relation which the supply bears to the demand.

"It is, however, not necessary to resort to imaginary cases, in order to fortify this conclusion. Actual experience shews the principle in the clearest light.

"In the well known instances noticed by Adam Smith, of the insufficient pay of curates, notwithstanding all the efforts of the legislature to raise it, a striking proof is afforded that the permanent price of an article is determined by the demand and supply, and not by the cost of production. The real cost of the education, would, in this case, be more likely to be increased than diminished by the subscription of benefactors; but a large part of it being paid by benefactors, and not by the individuals themselves, it does not regulate and limit the supply; and this supply, on account of such encouragement, becoming and continuing

abundant, the price is naturally low, whatever may be the real cost of the education given.

"The effects of the poor-rates in lowering the wages of independent labor, present another practical instance of the same kind. It is not probable that public money should be more economically managed than the income of individuals; consequently the cost of rearing a family cannot be supposed to be diminished by parish assistance; but a part of the expenses being borne by the public, and applied more largely to laborers with families than to single men, a fair and independent price of labor, adequate to the maintenance of a certain family, is no longer a necessary condition of a sufficient supply. As by means of parish rates so applied, this supply can be obtained without such wages, the real costs of supplying labor no longer regulate the ordinary wages of independent labor.

"In fact, in every kind of bounty upon production, the same effects must necessarily take place; and just in proportion that such bounties tend to lower prices, they show that prices depend upon the supply compared with the demand, and not upon the costs of production."

Having now presented to our readers the opinions of these various writers, we shall endeavour to discover some principles which may decide the controversy, which is at the basis of the whole theory of Economical Dynamics.

The doctrine, then, whose soundness we are going to investigate is this, that there are two classes of cases of value, in the first of which *Cost of Production regulates Value*, in the other the *Cost of Producing the last quantity raised regulates the Value of the whole*.

Now, before we investigate the truth of these laws, we shall lay down certain fundamental principles, drawn from the whole analogy of Physical Science:—

I. *There cannot be more than one grand general Theory of Value.*

II. *That if two, or more, Theories of Value will apparently account for any class of phenomena of value, or changes of value, that Theory only is to be held as the true one, which accounts for ALL the phenomena in the Science, and not that single class of phenomena only.*

Hence it is quite clear that, if in any particular class of phenomena, we have several theories which will apparently account for them, we have, in order to discover which is the true law, only to suppose a change in the relation of the quantities, and then that theory only which holds good for the altered relation of the quantities, and accounts for the change, is the true Law, and all others must be rejected.

This is in exact conformity with the 3rd Aphorism of the *Novum Organum*, Book I.—"Quod in contemplatione instar causæ est, id in operatione instar regulæ est."—"That which in Theory is the Cause, in Practice is the Rule."

The result derived from these principles is this, that the Law according to which changes of value take place, is the Law of Value at all particular times.

Now, as soon as these indubitable principles are laid down, the day is lost for Ricardo and his followers; because Ricardo himself admits that the law of *Supply and Demand* governs the market price of all commodities for a limited

period. And Mr. Mill says that the Law of *Supply and Demand* only governs *perturbations* of value.

Now this concedes the whole question. Because the law which governs the perturbations or changes of Value, can be the only true law of Value in all particular cases.

And here we must notice an ambiguity which will be found to pervade many books on Political Economy. That is the confusion between "*Quantity of Labor*" and "*Value of Labor*," which are very different things, but which are often included under the term "*Cost of Production*."

De Quincey who, in the *Templar's Dialogues*, has undertaken to expound the Ricardian Economics, has justly pointed out the distinction between the "*Quantity of Labor*" and the "*Value of Labor*." He says that Smith has constantly used the two expressions as interchangeable and equivalent. And he claims it as the great law of value first explained by Ricardo, and as the corner stone of all tenable Political Economy, that the ground of the value of all things lies in the *quantity of labor* which produces them. He says—

"Mr. Ricardo's doctrine is, that A and B are to each other in value, as the *quantity* of labor which produces A to the *quantity* which produces B; or to express it in the very shortest formula by substituting the term *base*, as synonymous with producing labour, *all things are to each other in value as their bases are in quantity*. This is the Ricardian law." He then says that this doctrine is quite contradictory to the doctrine that commodities exchange in proportion to the value of their producing labor.—"I mean to affirm that the one law is the direct, formal, and diametrical negation of the other: I assert in the most peremptory manner, that he who says, 'The value of A is to the value of B, as the quantity of labour producing A, is to the quantity of labour producing B,' does of necessity, deny by implication, that the relations of value between A and B are governed by the *value* of the labor which severally produces them." De Quincey then praises Ricardo for his "inexorable consistency."

The distinction is both true and important, but how utterly De Quincey has misunderstood and misrepresented Ricardo, we have fully shewn under DE QUINCEY, where we have exhibited side by side De Quincey's assertion of what Ricardo's doctrine is, and copious extracts from Ricardo himself, shewing what an untrustworthy guide he is.

We have shewn there how utterly untrue it is that Ricardo says that the *value* of labour has no influence on price. But it will be found that Ricardo has constantly confounded the *quantity* of labour, with the *value* of labour, and, sometimes, he makes the value of things to depend upon one, and sometimes upon the other.

The thesis of the first three sections of his first chapter is to prove that the *value* of commodities depends exclusively on the *quantity* of labour necessary for their production, and in no way whatever upon the compensation paid for, or the *value* of labour. But in § iv., he expressly says that the *value* of labour does influence the price of commodities, and at p. 46, (3rd edition,) he says—"It is necessary for me also to remark that I have not said, because one commodity has so much labour bestowed upon it as will cost

£1000, and another so much as will cost £2000, that therefore one would be of the value of £1000, and the other of the value of £2000, but I have said that their value will be to each other as two to one, and that in these proportions they will be exchanged." Now, in this passage, Ricardo clearly asserts that commodities will exchange in proportion to the *value* of their producing labour. What becomes, then, of De Quincey's peremptory assertions, and Ricardo's "inexorable consistency?" Besides this, at p. 461, he expressly calls the natural price of things their money cost of production.

Mr. Mill has seen (*Vol. I, p. 558*), that, in fact, the term Cost of Production cannot be restricted to either labour, or wages, absolutely. It may be labour in some cases, but in others it is money, or the value of labour. "What the production of a thing costs to its producer, or its series of producers, is the labour expended in producing it. If we consider as the producer the capitalist who makes the advances, the word labour may be replaced by the word wages. What the produce costs to him, is the wages which he has had to pay." Thus we see at once that, *quantity of labour* is replaced by the *value of labour*, and the whole of De Quincey's argument falls to the ground.

Now this distinction between *quantity of labour* and money cost of production is of no slight importance, because there are large quantities of valuable property upon which no labour at all has been bestowed, and yet have cost money. Thus flocks, herds, cattle, fowls of all sorts. It is absurd to speak of their growth as labour, as some economists do. So the fermentation of beer or wine in a cellar. Some of our readers may be surprised to learn that some economists are so determined to resolve value into labour, and into labour only, that when they are asked to what the value of a tree, or an animal, or wine improved by fermentation, is due, they maintain it to be labour!

But take it as we may, either quantity of labour or money cost of production, we shall shew that the doctrine that cost of production regulates value is entirely false; because, if this doctrine be true, it must necessarily mean:—

1st. That all things which are produced by an equal quantity of labour, or an equal money cost, must be equal in value, independently of any other consideration.

2ndly. It must also mean, that all changes in value must be due to changes in cost of production, and to nothing else.

3rdly, And if different things produced by equal quantities of labour must be equal in value, still more rigorously, if possible, must it follow that all parts of the same thing when once produced, must be equal in value.

We shall now give examples of each of these cases, to shew that the rule is utterly untrue.

As an example of the first case let us take this. Nothing is more common in coal mines than for two seams of coal to be of totally different qualities, and adapted for different purposes. Now let us suppose that in any coal mine, there is a seam of excellent coal of the finest quality, and next to it, there is a seam of coal of very inferior quality. Any equal quantities of these different seams may be supposed to be raised and conveyed

to market by exactly the same quantity of labour, or at exactly the same money cost. Would they sell at the same price? Common sense says that they would not.

Again, let us suppose an orchard, or garden. The trees are, of course, cultivated with a certain amount of labor, or expense; consequently, each individual piece of fruit must be the result of exactly the same quantity of labour, or cost. Yet everyone knows that out of the very same orchard and off the very same tree, fruit of very different qualities will be gathered. Will these different qualities of fruit, fetch the same price in the market? Common sense says they would not.

Next let us take the third case, for the sake of convenience. If cost of production regulates value, it is quite clear that every part of the same thing ought to bear the same price. The slightest reflection, however, will shew that this is utterly false. Take any animal used for food, for example. Do equal quantities of all parts of the same sheep, or the same ox, bear the same price in the market? Common sense says they do not.

Would equal quantities of the fruit of a tree and of the wood of a tree sell for the same price in the market? Common sense says they would not.

Mr. Mill has also seen that this doctrine is quite inapplicable in such cases. After supporting Ricardo's doctrine in cases of indefinite production, he says—"It is now, however, necessary to take notice of certain cases to which from their peculiar nature this law of exchange value is inapplicable. It sometimes happens that two different commodities have what may be termed a joint cost of production. They are both products of the same operation, or set of operations; and the outlay is incurred for the sake of both together, not part for one, and part for the other. The same outlay would have to be incurred for either of the two, if the other were not wanted or used at all. There are not a few instances of commodities thus associated in their production. For example, coke and coal-gas are both produced from the same material, and by the same operation. In a more partial sense, mutton and wool are an example; beef, hides, and tallow; calves and dairy produce; chickens and eggs. *Cost of production can have nothing to do with deciding the value of the associated commodities relatively to each other.* It only decides their joint value. The gas and the coke together have to repay the expenses of their production, with the ordinary profit. To do this, a given quantity of gas, together with the coke, which is the residuum of its manufacture, must exchange for other things in the ratio of their joint cost of production. But how much of the remuneration of the producer shall be derived from the coke, and how much from the gas, remains to be decided. Cost of production does not determine their prices, but the sum of their prices. A principle is wanting to apportion the expenses of production between the two.

"Since cost of production here fails us, we must revert to a law of value anterior to cost of production, and more fundamental, the law of demand and supply." Mr. Mill then goes on to explain the operation of this law to these cases, and then says—"This theorem is not in itself of any great importance: but the illustration it affords of the

law of demand, and of the mode in which, when cost of production fails to be applicable, that other principle steps in to supply the vacancy, is worthy of particular attention."

Here is well exemplified the utterly unscientific character of which we complain in the school of Political Economy to which Mr. Mill belongs. Mr. Mill himself allows that the investigations in Political Economy are to be conducted in a similar spirit to those of Physical Science. Does he, then, we ask, conduct his investigations in a way that would be permitted in any physical science whatever? As soon as any Physicist saw that any cases whatever could by no possibility be accounted for by a law supposed to be general, he would at once abandon such a law.

We have next to shew that no change in cost of production will influence value, unless accompanied by a change in supply and demand.

Ricardo and Mr. Mill in fact admit this, because they say that perturbations of value are governed by supply and demand, which in fact concedes the question. Ricardo, in the passage from ch. xxx. already quoted, says, "That if the demand for hats should be doubled, the price would immediately rise; but that rise would only be temporary, unless the cost of production of hats, or their natural price, were raised." But if the hats rose from the increased demand, why should they fall again, without the supply being increased? If they are to fall again, why should they have risen? If cost of production, supply, and demand, remain exactly the same after they have risen, how can any change in their value take place? Ricardo has omitted to state, what he meant, no doubt, that upon the rise of prices from the increased demand, a larger supply would be produced, which would again reduce hats to their former value. But the omission of this is the whole essence of the question. Because it was the increased demand which raised them, and it would only be the increased supply which would lower them. Thus shewing that it is entirely through the operation of demand and supply that all changes in value take place.

In order to illustrate this, let us take an example of any manufactured article, such as stockings. Let us suppose that at any given time, they bear a certain price in the market, no matter what, and that there is a certain demand for them at that price.

Let us suppose that at a certain time before the introduction of machinery, a manufacturer employed 1,000 hands. Suppose, then, that he invents a piece of machinery, by which he can produce the same quantity of stockings, but at the expense which only 50 men would be. Now, if he only produces the same quantity as before, as he will of course take the best price he can get for them, the demand remaining the same, it is quite evident that no alteration in price will ensue, and all the profit accruing from this diminution in cost of production will go into the pocket of the producer. Consequently, if he does not manufacture any additional quantity, no alteration in the market price will follow; everything will go on as before. The only difference will be, that that particular manufacturer will make enormous profits, owing to his sagacity and skill in inventing this machinery.

But if the materials for making the stockings

can be supplied in unlimited quantities, the manufacturer will naturally wish to increase the quantity he produces, and realize greater profits. But if he produce a greater quantity than before, that increased quantity will not be sold unless at a diminished price, so as to increase the circle of buyers. But as the cost of production to him has been reduced, he can afford to sell at a diminished price, and the more he wishes to sell, the more must the price be reduced.

Now it is quite evident that the increased quantity thrown on the market by this single manufacturer, and offered at a diminished price, must affect the prices of the whole quantity in the market, because every one else must consent to sell at the same price to effect a sale at all. Thus every single manufacturer must accommodate his prices to the market price, and if he cannot produce at the market price, he will have to cease producing. As we may suppose that there are various degrees of skilfulness and economy among the various manufacturers, it is quite evident that at every successive diminution of the market price, those in succession will have to cease working, who are least able to produce cheaply. Hence it is quite clear that it is the market price which regulates the quantity of expense that can be afforded in producing, and that it is the quantity that can be produced at the least expense compared to the whole quantity that can be sold, that regulates the market price.

These examples are quite sufficient to show that the Law that Cost of Production regulates Value in cases of freely-produced commodities, wholly fails.

We have now to examine the other case where Cost of Production is said to regulate value, namely, where commodities are produced by means of a series of varying Costs of Production. These commodities are corn, coals, metals, &c.

Ricardo asserts that it is the cost of producing the last quantity raised under the most unfavourable circumstances that regulates the value of the whole produce.

We affirm, on the contrary, that supply and demand is the sole regulator of market price, and that the market price indicates the greatest Cost of Production that can be afforded, or the most unfavourable circumstances under which production can take place.

The Ricardian Theory of Rent is fully exhibited under RENT, and granting that production will cease when it ceases to be remunerative, the only question is to decide whether it is Cost of Production that regulates market price, or market price which indicates the limits of Cost of Production. Ricardo says, page 60:—"When land of an inferior quality is taken into cultivation, the exchangeable value of raw produce will rise, because more labour is required to produce it." We think that the subjects connected in this paragraph should have been arranged thus:—"When the exchangeable value of raw produce rises, land of an inferior quality will be taken into cultivation because more labour may be profitably employed in producing it."

During the great revolutionary war a succession of bad harvests, joined to other causes, produced an enormous rise in the price of corn, so that in 1812 wheat reached the price of 130s. a quarter. Owing to this extraordinary rise of price an im-

mense quantity of inferior land was taken into cultivation at an extravagant cost, because the farmers expected that high prices would be permanent. Now, supposing that the old lands in cultivation produced no more than they did during the years of scarcity, what would be the necessary consequence of this additional quantity thrown on the market? As the quantity of land taken into cultivation could only be increased gradually, the first quantity added to the existing supply would not have added much to it. The proportion between the increment and the existing supply would not have been great, consequently it would only lower the prices a little, and would leave a large profit to the producer. But the more land that was brought into cultivation the more would the quantity of corn brought to market be, and the more would the prices be lowered. And this might go on until the constantly increasing quantities of corn lowered the price so much, that it would only just leave a profit, and further production would cease. Any further quantity poured on the market could only depress the market price below the cost of production, and ruin the producers. Assuming, therefore, that market price and cost of production meet, the only question is, which governs the other.

It is perfectly clear that at all times the market price is solely governed by demand and supply. If there is not an adequate supply, the market price would remain permanently above the Cost of Production; if the market continued to be over supplied, the price would remain constantly below the Cost of Production. Let the Cost of Production be what it will, no change in market price will take place except through an alteration of the supply or the demand. Hence it is perfectly clear that it is always the market price which indicates the greatest expense that can be afforded as Cost of Production.

Exactly the same principle holds good with regard to mines. The Cost of Production of all minerals may vary in a series of regular gradations, and at any particular time it is the market price which indicates the most unfavourable circumstances under which production will take place. Mr. Mill says (*Vol. ii., p. 10, 23*) that money is a commodity, and its value is determined like that of other commodities, temporarily by demand and supply, permanently, and on the average, by Cost of Production. But who can tell what the Cost of Production of the money which is in circulation has been? No one can tell where the gold of which the money of the world is made came from. Coinages are melted and remelted through innumerable series of ages. A French Economist says that during the last century, in the remote districts of France, there were actually coins in circulation of the period of the Roman Empire. There is nothing extravagant in the supposition, nay, there is every probability, that a part of the actual gold of which the existing coins are made may have come down to us from the Egyptians. It has certainly come from a vast variety of quarters, and been produced under all sorts of varying degrees of expense. And who can possibly tell what its Cost of Production has been?

It appears, therefore, that the doctrine that there are different classes of commodities, whose values are governed by fundamentally distinct

laws, is not only utterly repugnant to all physical science, but it is shown to be utterly untrue in itself. The *Law of Continuity* abolishes all these false distinctions. And this is no immaterial dispute about words, it is not mere logomachy, but it is a fundamental difference of principle between two distinct systems of Political Economy. We say that those who hold such views not only completely break that Continuity of Science, which Bacon so earnestly and solemnly preached, but they manifestly invert cause and effect.

It is so extremely important to understand the nature of the fallacy which runs through the whole of this system of Political Economy, that we may give an illustration. It is well known that the cultivation of certain agricultural products, and the climate they can flourish in, are intimately connected. At certain points the cultivation of maize, the vines, olives, the palm, ceases, and the average temperature of the lines where each product ceases to be cultivated, can be easily ascertained by observation. Now, reasoning according to the doctrines we have been discussing, we ought to say that the boundaries of the cultivation of these products *regulated* the climate of the place, when it is manifestly the reverse, it is the climate which indicates the possibility of their being raised with a profit.

Or again, there is a certain kind of letter weight, which indicates the weight of the letter by raising a series of weights in succession; now it is quite clear that it is not the last weight raised which regulates the weight of the letter, but the weight of the letter which regulates which weight will be raised last.

It is perfectly true that in a great many cases the natural effects of competition will cause the price to approach very nearly to Cost of Production, and Ricardo's law will apparently be found to answer. But this is just one of the things which must be most sedulously guarded against in science, viz., to give in a careless adherence to a form of expression, or a theory, which is radically erroneous, because it appears to account for phenomena. It is the very purpose of Inductive Logic to discriminate between rival theories. The history of Physical Science furnishes abundant examples to guide us. We may give one. In the olden times, philosophers thought that the motion of projected bodies had a natural tendency to decay. They always saw that the motion of a projected body gradually diminished, and finally ceased. Now it is quite easy to calculate results on this principle. Given, a certain velocity of projection, it would have been quite easy to calculate when the motion would cease, upon the supposition that it naturally decayed. And the results would have agreed with the calculations. What could be more satisfactory? If, then, it is hastily assumed that because results may agree with calculations, the principles of these calculations are therefore *necessarily* true, these opinions might have maintained their ground. But it is well known that modern philosophers have entirely rejected such a notion, as that motion has a natural tendency to decay. They arrive at the result by a totally distinct principle. They say that motion has no natural tendency to decay, but that in all the cases we see, there are counteracting principles,

such as the resistance of the air, friction, &c., which oppose it, and finally destroy it. And they unanimously reject the former mode of accounting for the results, and adopt the latter. Hence we see that though principles are manifestly erroneous, which do not account for results, yet it does not necessarily follow that any principle, or theory, which does account for them, is therefore necessarily true, because in fact it may so happen that several theories may account for the result, and it requires judgment and consideration to decide which is the true one. Now the theories of value we have been discussing, are just like the old theories of motion. They apparently account for results in a great many cases, and therefore they may impose upon an unwary thinker. But they are dangerous and seducing errors, utterly opposed to the fundamental principles of Natural Philosophy, and to be repudiated and rejected by all those who study Political Economy in the true spirit of Science.

COSTAZ, CLAUDE ANTHELME, who did much service in his day to Economic Science, was born at Champagne, in the department of the Ain. After the 9th Thermidor, he obtained an appointment in the office of the Board of Agriculture, and afterwards that of Commerce, in which he rose to be one of the chiefs. In 1802, he was one of the founders of the Society for the Encouragement of National Industry, and five years afterwards he suggested and obtained the establishment of public lectures in the *Conservatoire des Arts et Métiers*, which was just founded. He was appointed by Government to draw up the introduction to the account of the Exposition of National Industry, which was held the same year. He also originated the *Conseils de Prud'hommes*, which have been of so much service in France. In 1812, he was appointed to draw up a large series of statistical tables, relating to commerce and manufactures, to be laid before the *Corps Législatif*. They exhibited the manufacturing condition of France in 1789, 1800, and 1812. He has published the following works:—

Essai sur l'administration de l'agriculture, du commerce, des manufactures, et des subsistances. Paris, 1818.

Histoire de l'administration en France de l'agriculture, des arts utiles, du commerce, des manufactures, des subsistances, des mines, et des usines. Paris, 1843.

Mémoire sur les moyens qui ont amené le grand développement que l'industrie Française a pris depuis vingt ans. Paris, 1816.

COSTER. Ouvrier menuisier.

Organisation du travail, Ebénisterie française. Paris, 1851.

COTTERILL.

An examination of the doctrines of Value, as set forth by A. Smith, Ricardo, M'Culloch, &c. London, 1814.

COTTERILL, CHARLES FOSTER.

Agricultural Distress, its Cause and Remedy. London, 1850.

The Civil Freedom of Trade; or the rights and duties of governments in their relation to the natural freedom of private enterprise. London, 1856.

Public Granaries and the Cycle of the Seasons in connection with Trade and Agriculture. London, 1856.

COTTON, SIR ROBERT BRUCE, a celebrated antiquary, whose collection of manuscripts forms part of the original foundation of the British Museum, was born at Denton, in Huntingdonshire, 22nd January, 1570. He was educated at Trinity College, Cambridge. He devoted himself ardently to antiquarian study, and collected a vast number of manuscripts, charters, &c., and documents relating to the history of the country, which were chiefly gathered from the libraries of the monasteries broken up by Henry VIII. His collection was of great use to Camden, Selden, and other writers of that species, and Cotton himself was held in the highest esteem by the most eminent men in James I.'s time, as an authority on all points of constitutional law. He was knighted by James I., and wrote several tracts by his order. In 1611, the king was much straitened for money, and afraid to call a parliament, was anxious to devise some method of raising money without one. Cotton suggested the creation of the rank of baronet, which was to be sold. The king was delighted with this plan, and Cotton was one of those who bought a baronetcy. He was afterwards employed both by the king and the House of Commons to write several tracts on various subjects. In 1615 his intimacy with the vile favourite of the king—Carr, Earl of Somerset—caused him to be suspected of being privy to Sir Thomas Overbury's murder. He was kept in confinement for five months. A worse misfortune, with a more tragical ending, happened to him in 1629. He was returned to the first Parliament of Charles I., and was in favour of a redress of grievances, but with all due respect for the king. A tract, in manuscript, was disseminated, bearing the title, "A Project how a Prince may make himself an absolute Tyrant." A great uproar being made about it, it was traced to the Cottonian Library. Sir Robert being quite unconscious of the whole transaction, found on inquiry, that it got into his library under another name, without his knowledge, and also without his knowledge had been taken from it, and the title altered. Although Sir Robert proved his entire innocence of the whole transaction, his library was sequestered in the most arbitrary manner, and he was forbidden access to it. He took this so much to heart that he died of chagrin, 6th May, 1631. His library was much augmented by his son and grandson, and passed into the possession of the public in 1700. After various journeyings, it was deposited in a house in Little Dean's Yard, where, in 1731, it was much damaged by fire, 111 manuscripts of great importance being destroyed, and 99 more injured. In 1757 it was transferred to the British Museum.

An Abstract out of the Records of the Tower, touching the King's Revenue. London, 1642.

Cottoni Posthuma.

A Discourse of Foreign War, with an account of all the taxations upon this kingdom, from the Conquest to the end of the reign of Queen Elizabeth. London, 1690.

COVE, MORGAN.

An Essay on the Revenues of the Church of

England, with an inquiry into the abolition or commutation of tithes. London, 1816.

COVENTRY, GEORGE.

On the Revenues of the Church of England; exhibiting the rise and progress of Ecclesiastical Taxation. London, 1830.

COULON, J. J. B. Docteur en droit.

Plan sociale et humanitaire; organisation du travail, et de l'impôt; secours aux pauvres. Paris, 1848.

Nécessité de l'organisation du travail. Paris, 1848.

COURNAT, ANTOINE AUGUSTIN.

Recherches sur les principes mathématiques de la Théorie des Richesses. Paris, 1838.

COURT, M. HENRY.

A Review of the Income Tax in its relation to the National Debt, with suggestions for removal of its present inequalities. London, 1853.

Theory and Facts in proof that the Laws for the imposition of Tithes are attended with the most calamitous consequences to the country. London, 1826.

Tithes—Commutation versus Composition. London, 1831.

COURTENAY, THOMAS PEREGRINE.

The Right Honourable.

A Letter to Lord Grenville on the Sinking Fund. London, 1828.

A Treatise upon the Poor Laws. London, 1818.

COURTNEY, LEONARD H.

Direct Taxation; an Inquiry. London, 1860.

COURTOIS, A.

Etudes sur l'agiotage. Paris, 1852.

Des opérations de bourse. Paris, 1856.

COUSIN, VICTOR. This eminent person was born November 22, 1792, at Paris. He has published one work relating to Economics—*Justice et Charité.* Paris, 1849.

COUSINERY, ESPRIT MARIE.

Essai historique et critique sur les monnaies d'argent de la Ligue Achéenne, accompagnée de recherches sur les monnaies de Corinthe, de Sicyon, et de Carthage. Paris,

COUSINS, DENNIS LOUIS.

Out-door Relief to Able-bodied Paupers. London, 1850.

COWELL, JOHN WELSFORD.

Letters to the Right Hon. F. T. Baring, on the institution of a safe and profitable Paper Currency. London, 1843.

Further Letters on Currency. London, 1858.

COWLEY, J.

A View of the British Trade to the Mediterranean. London, 1744.

COXE, TENCH.

A Memoir of February, 1817, upon the subject

of the Cotton Wool cultivation, the Cotton trade, and the Cotton Manufactures of the United States of America. Philadelphia, 1817.

An Addition of December, 1817, to the above.

A View of the United States of America. London, 1795.

CRADOCKE, FRANCIS, Merchant.

An Expedient for taking away all Impositions, and for raising a Revenue without Taxes, by creating Banks for the Encouragement of Trade London, 1660.

CRAIG, JOHN, of Glasgow.

Remarks on some fundamental Doctrines in Political Economy. Edinburgh, 1821.

Elements of Political Science. Edinburgh, 1814.

CRAIK, GEORGE LILLIE, a distinguished writer on the English language and literature, was born in Fifeshire, in 1799, the son of a schoolmaster. In 1824 he came to London, and wrote "The Pursuit of Knowledge under Difficulties," for the Society for the Diffusion of Useful Knowledge, besides contributing extensively to "The Penny Cyclopædia." In 1839 he became editor of "The Pictorial History of England." After several other works, he was appointed Professor of History and English Literature in Queen's College, Belfast.

The History of British Commerce from the earliest times. London, 1844.

CRAUFURD, CHARLES. Lieutenant-General.

Reflections upon Circulating Medium, Currency, Prices, Commerce, Exchanges, &c. London, 1817.

CRAUFURD, GEORGE, of Rotterdam.

The Doctrine of Equivalents, or an explanation of the nature, value, and power of money; together with their application in organising public Finance. Rotterdam, 1803.

An Essay on the actual Resources for re-establishing the Finances of Great Britain. London, 1785.

A Letter to the Right Hon. Henry Addington, on the Finances of Great Britain. London, 1802.

CRAWFORD, JOHN, of Paisley,

The Philosophy of Wealth. London, 1846.

CRAWFURD, JOHN.

A View of the present State and future Prospect of the Free-trade and Colonization of India. London, 1829.

An Inquiry into some of the principal Monopolies of the East India Company. London, 1830.

Chinese Monopoly examined. London, 1830.

Taxes on Knowledge; a financial and historical view of the taxes which impede the education of the people. London, 1836.

CRAWFURD, QUINTIN,

Researches concerning the Laws, Theology, Learning, Commerce, &c. of ancient and modern India. London, 1807.

CREDIT is the name of a certain species of incorporeal property, called also a **DEBT**.

It is the right to demand a certain sum of money from a certain person at a certain time.

It is therefore the lowest form of an annuity : it is an annuity of one term : it is the right to demand a single payment, an annuity in general is the right to demand a series of payments.

An operation on credit in commerce, is a sale, or an exchange, in which one, or both, of the quantities exchanged is a debt.

The system of credit consists in the creation and sale of debts.

It is divided into two branches,—1st. Commercial Credit, which principally consists in the sale or exchange of commodities for debts ; 2ndly, Banking Credit, which consists in the sale or exchange of money and debts for other debts.

The subject of Credit is the greatest and most abstruse in Political Economy ; what the *Differential Calculus* is in mathematics, what *Steam* is in mechanics, that is *Credit* in commerce.

2. Considering the mighty part which Credit plays in modern commerce, and the effects it has had for weal or for woe upon nations, we should naturally have expected that Economists had thoroughly worked out the subject, and were unanimously agreed upon its nature and effects.

So far is this from being the case, that on no subject whatever, if possible, are they more utterly at variance with each other, and what is more surprising still, are they more utterly at variance with themselves.

3. It was out of the discussions on the nature of credit that modern Political Economy took its rise. The terrible catastrophe of the Mississippi scheme in France, which was an attempt to realise "Law's Theory of Money," which was, in fact, the prevailing one of the age, and still has innumerable admirers, set Turgot, then a very young man, speculating upon the nature of money and credit, and gave rise to his subsequent treatises. Turgot did immortal service to Political Economy, and may indeed be said to have laid its corner stone, by explaining the true nature of money, but he entirely failed with that of credit.

In fact, from that day to this, the subject of credit has been an utter perplexity to Economists. To show the absolute necessity for a thorough investigation of the subject, we have only to set before our readers the astounding self-contradictions of Economists of the greatest name on the subject.

4. In the following treatise we shall consider the subject in the following order :—

I. *The Fundamental Conceptions upon which the Theory of Credit rests.*

II. *The Nature of Credit ; and the Elements of the Theory of Credit.*

III. *The Mechanism of the System of Credit.*

IV. *The History of Ideas on the subject, and an examination of the opinions of modern Economists on it.*

SECTION I.

OF THE FUNDAMENTAL CONCEPTIONS ON WHICH THE THEORY OF CREDIT RESTS.

5. The following are the Fundamental Conceptions upon which the Theory of Credit rests :—

1. That an Economic Element—or an article of Wealth—is anything whose value may be measured, as Aristotle said ; or which has the power of purchasing, as Mr. Mill says.

2. That whatever may be exchanged separately, is separate property—is an Economic Element—or Wealth.

3. That Property is not a Thing, but a Right.

4. That Property, or Rights, may be divided into rights to things in actual existence, and rights to things which have no existence at present, but will only come into existence at a future time.

5. That Value is the Exchangeable Relation between any two Economic Quantities, which are each the Value of the other, whatever their nature be, enduring or evanescent, corporeal or incorporeal, present or future, general or particular.

SECTION II.

THE NATURE OF CREDIT, AND THE ELEMENTS OF THE THEORY OF CREDIT.

6. Having laid down these Fundamental Conceptions, we shall now proceed to investigate the Nature of Credit, and show how it arises.

On the distinction between a BAILMENT and a DEBT.

We have now to call our readers' attention to a subject of the greatest importance, and we do so with the greatest solemnity and earnestness, because it is the *Pons asinorum* of Political Economy. It is perhaps, at first sight, of a somewhat subtle nature, and could by no possibility occur to any one not conversant with law and commerce. But it is one of those delicate subtleties which occur in all sciences, upon which the most important consequences turn, and it is, in fact, a confusion on this point which is at the root of most of the false theories of currency and credit, which have produced such terrible catastrophes in the world.

7. There are two species of paper documents which are in general use in commerce, which have some superficial resemblances,—that is, they both convey rights to certain things, and are similarly transferable, and are therefore considered by many to be of the same nature, but which are yet fundamentally distinct in their nature, and in this radical distinction is contained the basis of the Theory of Credit.

These species of paper documents are—

I. Bills of Lading, Dock Warrants, and all other titles to specific things.

II. Bank Notes, Bills of Exchange, and other forms of credit.

8. In order to shew clearly the fundamental distinction between these two classes of paper documents, we will explain how each arises.

When a man ships goods on board a vessel, he receives from the captain a paper document acknowledging the receipt of the goods, and promising to deliver them to whomsoever shall be the owner of the paper. This document is called a BILL OF LADING.

The shipper of the goods sends the Bill of Lading to the consignee, who, directly he receives it, may negotiate it, i.e. transfer it by indorsement to whomsoever he pleases, in all respects like a Bill of Exchange, and it may pass through any number of hands, and whoever is the owner of it at any time may go and demand the goods from the captain.

Similarly, when goods are deposited in a dock warehouse, the dock master gives a paper docu-

ment of a similar nature to the Bill of Lading, which is called a Dock Warrant, which is transferable in all respects like a Bill of Lading, or Bill of Exchange, and whoever is the owner of the Dock Warrant, is the owner of the goods described in it, and is entitled to demand and receive them from the dock master.

9. Now it is especially to be observed in these two cases, that although the goods are delivered into the temporary custody of the captain or dock master, they have no *Property* in them. The *Property* in the goods remains with the shipper, or depositor, and is transferred by him along with the Bill of Lading, or Dock Warrant. The captain, or dock master, is the mere *BAILEE*, or *TRUSTEE* of the goods, and *not* the *OWNER*. He has no right to convert them to his own use, and if he did so, it would be a *robbery*, and he would be liable to be punished as a *thief*. Thus the Bill of Lading and the Dock Warrant form *ONE* *Property* with the goods, and cannot be separated from them. The goods travel *with* the paper document. Thus it may be said in this case, that the paper document *represents* goods. In this case there is no *exchange*, and these documents have no *value*, *i.e.*, they are not exchangeable separately. They are not exchangeable for goods generally, but are titles to certain specific goods, and no others. No one ever spoke of the *value* of a Bill of Lading, or a Dock Warrant. Such documents are *NOT* *CREDIT*, because the owner of them does not simply *believe* that he can obtain goods in exchange for them, but he *knows* that he has become the owner of certain specific goods. Such a transaction is not an *Exchange*, but a *BAILEMENT*.

10. Let us now take the case of a banker. Suppose a customer brings 100 sovereigns tied up in a bag to his banker, and asks him to take care of them for him, and give them back to him, or any one he may choose to name, on demand. This would confer no *Property* in the money on the banker. He would have no right to use it for his own purposes. If he gave a receipt for it, promising to deliver it to whomsoever it might be transferred, that receipt and the money would be *ONE* *property*. The money and the receipt could not be separated, and the very money would always pass along with the receipt, and it would be in its nature exactly similar to a Bill of Lading, or a Dock Warrant. The banker would be merely the *BAILEE* or *TRUSTEE* of the money, and not its *OWNER*, and if he converted it to his own use, he would be liable by law to very severe punishment.

11. But this is not the ordinary case of a banker and his customer. When the customer pays in money to his account at his banker's, the *Property in the money passes absolutely to the banker*. He is not the *TRUSTEE* or the *BAILEE* of it, but he becomes the *OWNER* of it, and is entitled to use it in any way he pleases for his own purposes. In *exchange* for this money, he creates a *CREDIT* in his customer's favor, promising to deliver him an equal amount of money on demand. This transaction is, in fact, an *exchange* or a sale. The banker *buys* the money from his customer by *selling* him the right to demand an equal quantity of money, at any time he pleases. Here, therefore, a *New Property* is created. The customer may transfer this property to whomsoever

he pleases, and it has *value*, because the owner of it can *exchange* it for money, or anything else. It is called *Credit*, because the owner of it only believes he can obtain money in exchange for it, but there is no specific money appropriated to it. The banker is not the trustee of the money, but he becomes the *debtor* of the customer, and if unfortunately he should happen to fail, his customers are only entitled to have his property divided among them, and must take their chance of having their debts paid in full.

Now we must observe this. By this operation a *New Property* is called into existence, by the act of the will, or the mutual consent, of both parties. This debt, or obligation, is a species of property which is called *CREDIT*.

Thus, says Mr. Williams, *Law of Personal Property*, p. 5, speaking of debts—"Choses in action having now become assignable, become an important kind of personal property." Again, p. 58,—"*A legal chose in action constitutes a valuable kind of personal Property.*"

Again, p. 155,—"*In addition to goods and chattles in possession, which have always been personal property, and to DEBTS, which have long been considered so,*" &c.

12. Hence, we see that *CREDIT* or *DEBT* is itself a species of independent property, which may be bought and sold, and is so to the amount of millions of money daily. And there are shops for the express purpose of buying and selling this species of property. As there are shops for dealing in bread, clothes, furniture, &c., so there are shops for the particular purpose of buying and selling *debts*, and these shops are called *BANKS*.

And as there are fish markets, and corn markets, and many other sorts of markets, so also there is a market for buying and selling foreign debts, which is called the *ROYAL EXCHANGE*. Thus banks are nothing but debt shops, and the *Royal Exchange* is the great debt market of Europe.

13. Now a debt being itself independent, exchangeable property, which is bought and sold to the amount of millions of money daily, and also being the largest species of property employed in the purchase of commodities, is by the very force of the definition given by Aristotle and Mr. Mill,—*Wealth!*

14. Hence we at once strike at the root of an enormous amount of confusion on the subject; for, as we have shown hereafter, the common notion of credit is, that it is the *transfer of capital*, whereas we have shown above, that *credit is the name of a certain species of property*.

In the apparently subtle distinction between Bills of Lading being merely titles to certain specific property, and Bank Notes being merely naked rights which may be exchanged for money, lies the basis of the whole Theory of Credit, with all its enormous consequences.

On Commercial Credit.

15. In order to present the subject in as great a variety of ways as possible, we will consider another case.

Let us suppose that two persons trade with each other, say a wine merchant and a tea-dealer. Then if they want from each other, quantities of each other's produce equal in value, they can

effect an exchange, and there is an end of the transaction.

16. But let us suppose that the wine merchant does not want so much tea, to the value of 5 lbs. say, as the tea-dealer wants wine. Then there will be an unequal exchange of present wants. The matter, however, may be arranged in two different ways.

1. Although the wine merchant does not want the tea at present, he will probably want it at some future time. The tea-dealer might, therefore, sever from his stock of tea the quantity due, say 5 lbs., and set it apart as the property of the wine merchant, and agree to keep it for him till he requires it. He might also give him a receipt for it, promising to deliver it to him, or to any one who might be the owner of the paper, on demand. Such a receipt might be transferred from hand to hand any number of times in commerce, and would always carry with it the property in the 5 lbs. of tea. This document would be similar to the Bills of Lading and Dock Warrants described above. It would form but *one* property with the tea, and this document *represents* tea. The tea-dealer has parted with the property in that specific portion of tea, and from being the *owner* of it, has become merely the *bailee* or *trustee* of it, and has lost all power to use it for his own profit.

2. The wine merchant may not wish to have the tea at all, nor anything else at the time. He must have, therefore, a *pledge* that he shall be enabled to make an exchange, or receive what he wants at some future time. And this *pledge* may be of two different forms; 1st, the tea-dealer may give him the amount of the debt in money, which will enable him to get what he wants from any one else. Now, we observe that this money is neither meat nor drink, nor anything else useful to man, it is only the *means* whereby these things can be got. And the wine merchant only takes it because he *believes* he can exchange it for what he wants at any time. It is, therefore, as has often been observed, a general bill of exchange on the whole commercial community—it is general **CREDIT**.

It is also to be observed that though it is exchangeable for commodities in general, it does not *represent* them, as bills of lading represent goods. It is separate and independent exchangeable property over and above commodities. It is of the *value* of commodities, but does not represent them.

2nd. Instead of giving him money, the tea-dealer may merely give the wine merchant his *promise* to pay the tea when demanded. Now, this is manifestly not a general pledge, but only a particular one. The tea-dealer does not part with the property in any portion of the tea. He is still the owner of all his own stock, and may sell and dispose of it all for his own profit if he pleases. But he has created a pledge that he will deliver 5 lbs. of tea whenever he is asked for them. Now the least consideration will shew that this pledge is of the same general nature with the money. The only thing is this, that whereas the money is exchangeable for anything with anybody, and is therefore of *general* value, this promise to pay tea is only exchangeable for tea with him. It is, therefore, *particular* value. Moreover, he may fail, and be unable to pay the tea, and therefore the value of the pledge may be precarious. Money, therefore, is of general and permanent value,

this pledge is of particular and precarious value. Now this pledge or right is a new property created. It may be recorded on paper, and transferred or exchanged any number of times in commerce, among persons who believe in the tea-dealer's capacity to pay the tea when required. This document does not *represent* 5lbs. of tea, but is of the **VALUE** of 5 lbs. of tea.

17. And this is a good opportunity to point out the enormous mischief the expression *Intrinsic Value* has worked in Political Economy, for it is this which has been the chief cause of the confusion which has arisen about the Theory of Credit.

It is very commonly said by writers even of the greatest name, that money has *Intrinsic* value, and paper *representative* value, because labor has been bestowed on the one, and none on the other. The least reflection will show the utter absurdity of this doctrine. Adam Smith himself says that if money would exchange for nothing, it would be of no value, which manifestly proves that value does not depend on labor but upon exchangeability. In fact directly we observe that the value of a thing is the thing for which it will exchange, it manifestly follows that nothing can have intrinsic value, unless it has the thing it will exchange for inside itself.

18. Now as the value of a thing is the thing for which it will exchange, it manifestly follows that anything has as many values, as things it will exchange for. If a thing will exchange for an infinite number of things, it has an infinite number of values. If it will exchange for only one thing it has only one value.

19. Therefore the *value* of a promise is the *thing* promised. If the promise cannot be fulfilled, then the promise has lost its value.

Now the £1, or money, is of the *value* of 5 lbs. of tea—and an infinity of other things besides.

The "promise to pay" the 5 lbs. of tea is of the *value* of 5 lbs. of tea—neither more nor less.

It is **CREDIT** because the person who receives it, or gives anything in exchange for it, believes he can exchange it for tea.

20. Now we see at once that this **CREDIT**, though greatly inferior in security and generality of value, is nevertheless of the same fundamental nature as money, in fact, it is only a lower form of money. Or rather, we may say, that money is only the highest and most general form of Credit.

21. And as money is a separate and independent exchangeable property, wholly distinct from commodities, so Credit is separate and independent exchangeable property, wholly distinct from money and commodities. Credit is manifestly a substitute for money. And it is manifest that the whole aggregate of commercial debts are merely a substitute for an equal amount of money.

22. Credit, however, is not generally expressed in the form of a promise to pay goods, it is invariably, in this country at least, expressed in the form of a promise to pay money, and therefore it is of the value of money. The quantity of commercial credit which is created and exchanged in this country is something enormous, and there is no possibility of forming any estimate of its amount, which can bear any reliable approximation to the truth, because the greater portion of it never gets into a form which appears to the public at all, but is locked up in the books of traders.

23. Hence we see the radical and fundamental distinction between Bills of Lading, Dock Warrants, &c., on the one hand, and instruments of Credit on the other.

The former are always specific titles to certain specific Goods, they always go with them, and cannot be separated from them, and therefore they form only *ONE* property with them. They always arise out of a *BAILMENT*, and never out of an *EXCHANGE*, and they may justly be said to *REPRESENT* goods. Moreover they form no addition to the mass of exchangeable property.

On the other hand, instruments of Credit of all sorts are always claims against the *PERSON*, and are absolutely severed from any connection with any specific goods, which is the very circumstance from which they derive their name. They circulate merely on the *belief* that they can be exchanged for money. They always arise out of an *EXCHANGE*, and *never* out of a *BAILMENT*. Bills of Lading, &c., always go with goods, &c., Bank Notes, &c., are always exchanged for money, or goods. Bills of Lading, &c., *represent* goods, but Bank Notes, &c., are of the *Value* of money. Moreover Credit in all its shapes and forms, is an addition to the mass of other exchangeable property.

24. From this it follows that Bills of Lading can never exceed in quantity, the goods they represent; but instruments of Credit of all sorts immensely exceed in quantity the money in the country—on the lowest calculation, tenfold. The considerations we have arrived at will throw a great light we shall find hereafter, on a question of momentous consequence—the *LIMITS* of Credit.

25. The considerations we have presented respecting the independent nature of Credit as a species of property, will be manifest to any one who thinks of the ordinary language of commerce. Thus, the assets, or the property of a banker, are always stated at so much, and his liabilities, or debts, or the credit which he is liable to exchange, at so much, thereby treating the property and the debts as manifestly independent quantities. So a bankrupt's assets are said to be so much, and his liabilities, or the credit he has created, to be so much, also independent quantities. It is always usual to speak of the value of a bank note or a bill of exchange. No one ever spoke of the *value* of a bill of lading, for the very reason that there can be no value without an exchange, and no exchange without value. Almost all commercial crises arise out of the excessive creation of that species of property called *Credit*; no one ever heard of a commercial crisis being produced by bills of lading or dock warrants.

26. The doctrine that we have stated above, that credit is independent property, will be found in abundance of places, and, in fact, it is so well known to every one who has the simplest knowledge of the first principles of law and commerce, that it may seem scarcely worth dwelling on at so great length. But, unfortunately, while many Economists acknowledge it in some places, in other parts of their works they quite forget it. In fact, it is the incredible confusion between value being what a thing will exchange for, and the labor, or cost, of producing the thing itself, and between Credit being separate exchangeable property transferred by means of Bills, Notes, &c.,

and its being the transfer of capital, that has thrown the Theory of Credit into such confusion.

27. Some writers, however, while they fully admit that a debt is property to be *added* to that of the owner of it, say that it is to be *subtracted* from the property of the obligor, and therefore upon the whole it is nothing.

As this notion is very common; and, as in fact, it contains the real subtlety of the subject, we shall quote an extract from Mr. Thornton's Work on Paper Credit, in which it is fully stated. He says p. 19.—“It may conduce to the prevention of error in subsequent discussions, to define in this place, what is meant by commercial capital. This consists, first, in the goods, (part of them in the course of manufacture) which are in the hands of our manufacturers and dealers, and are in their way to consumption. The amount of these is necessarily larger or smaller in proportion, as the general expenditure is more or less considerable, and in proportion, also, as commodities pass more or less quickly into the hands of the consumer. It further consists in the ships, buildings, machinery and other dead stock maintained for the purpose of carrying on our manufactures and commerce, under which head may be included the gold found necessary for the purposes of commerce, but at all times forming a very small item in this great account. It comprehends also the Debts due to our traders for goods sold and delivered by them on credit; debts finally to be discharged by articles of value given in return.

“Commercial capital, let it then be understood, consists not in paper, and is not augmented by the multiplication of this medium of payment. In one sense, indeed, it may be increased by paper. I mean that the nominal value of the existing goods may be enlarged through a reduction which is caused by paper, in the value of that standard by which all property is estimated. The paper itself forms no part of the estimate.

“This mode of computing the amount of the national capital engaged in commerce is substantially the same with that in which each commercial man estimates the value of his own property. Paper constitutes, it is true, an article on the credit side of the books of some men, but it forms an exactly equal item on the debit side of the books of others. It constitutes, therefore, on the whole, neither a debit nor a credit. The banker who issues £20,000 in notes, and lends in consequence £20,000 to the merchants, on the security of bills accepted by them, states himself in his books to be the debtor to the various holders of his notes, to the extent of the sum in question; and states himself to be the creditor of the acceptors of the bills in his possession to the same amount. His valuation, therefore, of his own property is the same as if neither the bills nor the bank notes had any existence. Again, the merchants in making their estimate of property deduct the bills payable by themselves, which are in the drawer of the banker, and add to their estimate, the notes of the banker, which are in their own drawer; so that the valuation likewise of the capital of the merchants is the same as if the paper had no existence. The use of paper does not, therefore, introduce any principle of delusion into that estimate of property which is made by individuals.”

28. The above extract contains the views to

which we wish to direct attention, as plausibly stated, and in as brief a compass probably, as it is possible to do so. It is also a remarkable example to shew the extreme caution necessary in stating an Economical question, for however apparently sound it is, it is, nevertheless, one tissue of fallacies, and if it were translated into mechanical language, they would be manifest at once to any one conversant in the smallest degree with Natural Philosophy.

Mr. Thornton's argument is simply this:— Suppose A to have £100 in money, and a three months' bill on B of £50 besides. Suppose B also to have £100, having accepted the Bill for £50, at 3 months.

Then A's property would be stated, thus,—

£100 + £50.

B's property would be stated, thus,—

£100 — £50.

Now Mr. Thornton's argument is that the + £50, and the — £50 balance each other, the result is 0, which is, according to him, the same thing as saying that neither of these quantities exists.

29. This view may appear to have some plausibility at first sight, but the slightest reflection will shew that it is totally erroneous.

Suppose a landlord lets a farm to a tenant who agrees to pay him a yearly rent. The tenant is under the obligation to pay his rent a year hence, which is just as if he had accepted a bill payable 12 months after date. Now the right to receive that rent is an actually existing right in the landlord, it is his property, which he may sell or transfer to any one else. It is *plus* to him, and an addition to his other property. The tenant is bound to pay this rent. He is, therefore, exactly in the same position as the merchant who has accepted a bill, and therefore this rent is *minus* to him just as the bill is to the merchant. It is quite clear that if the property of a merchant who has accepted a bill for £50 is stated, thus,—

£100 — £50.

the property of a farmer who is bound to pay rent must be stated thus,—

Property—Rent.

But no one would ever say that because a farmer has agreed to pay rent a year hence, that is any diminution of his balance at his banker's, or to be *subtracted* from the present amount of his property. It is quite clear that the future rents stipulated to be paid are meant to be paid out of *future profits* which are yet to be produced.

30. It is just the same with a merchant who has accepted a bill payable three months hence. He is not in debt at the present time, any more than the farmer. The well-known maxim of law is, that *credit unexpired may be pleaded under the general issue*, which means that if a man sues another for an obligation not yet due, he may reply simply that he is not in debt at all! It is quite clear, therefore, that in this case, the — cannot by any possibility mean *subtraction*.

31. This then is the paradox. The right to receive the future rent is an *addition* to the other existing property of the landlord. In this case + means addition.

But though the tenant is bound to pay the rent, and it is therefore — to him, it is not to be *subtracted* from his present property, and it is no

diminution of it. And in this case the sign — cannot mean *subtraction*.

What then does it mean?

In the first place, we may say that the view we have been considering sins fundamentally against the Philosophy of Science. For it is one of the great fundamental laws of Philosophy that when once the fundamental conception of a science is settled, all questions in the science must be stated so as to be in harmony with the fundamental conception of the science. Now as the fundamental conception of the Science of Political Economy is, that it is the Science of Exchanges, it follows that every question in it must be stated as a question of exchange. Now according to Mr. Thornton's mode of stating the question, he makes it a question of addition and subtraction; now addition and subtraction are not exchange, and therefore it is quite clear that that mode of stating the question must be wrong. It is clear that it must be stated in the form of an Exchange.

Moreover, any one versed in Natural Philosophy will at once see the nature of the fallacy involved in Mr. Thornton's mode of statement. It is just as if we were to say that because equal and opposite quantities neutralize each other's effect for certain purposes, and the result is 0, that that is the same thing as saying the quantities themselves do not exist. We shall fully illustrate this afterwards.

32. It may be as well, however, here to present to our readers the different conceptions which are held respecting Credit, or Debts. Algebraists long ago remarked that debts were negative quantities. They are called so by Maclaurin, and as may be seen in the extracts given below, by Euler and Peacock. So in the article *Algebra*, in the *Encyclopædia Britannica*, it says, § 3,—“A person's property may be considered as a positive quantity, and his debts as a negative quantity.” Adam Smith, as may be seen below, counts paper money as cumulative property, over and above gold and silver money. Mr. Mill, as may be seen below, in some places expressly calls bank notes productive capital, and a substitute for money, and separate exchangeable property. But in others, he makes Credit to be the *transfer* of capital. We have seen above that Mr. Thornton makes it to be a *subtraction* from property, and Dr. Peacock, in the extract given below, makes it to be property affected with the negative sign.

33. This is a specimen of the admired confusion that reigns throughout all Political Economy. Here are no less than *four* distinct conceptions of the nature of Credit! Some of these are used quite indiscriminately by writers, without the slightest apparent notion of their inconsistency. We have now, therefore, to determine what is the true conception of Credit, among these conflicting notions.

34. In order to assist us in the investigation of this point, we may see what the analogy of other sciences suggests. There is scarcely any other science in which the negative sign does not appear. In all of these there are negative quantities. Take Analytical Geometry, Mechanics, Optics, Electricity, or whatever science we please, and we observe that in each of these, negative quantities are not *transfers* of positive ones, or *subtractions* from positive ones, or positive ones affected with a *negative* sign, but separate and inde-

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33
ent quantities themselves. Hence we may once anticipate by analogy that *negative* quantities in Political Economy, are not *transfers* of positive ones, or *subtractions* from positive ones, property affected with the negative sign. But at they are separate and independent quantities themselves.

But if the sign — does not mean subtraction in Political Economy, what does it mean?

And what is the meaning of a *NEGATIVE* Economic Quantity?

On the Application of the Theory of Algebraical Signs, and of the Separation of the Signs of Position and Operation to Political Economy.

35. The perplexities of the Theory of Credit which have baffled all the Economists in the world to explain, can only be unraveled by the great modern Algebraical doctrine of the *Separation of the Signs of Position and Operation*.

As the introduction of this great doctrine into Political Economy is perfectly novel, we shall have to treat of it very fully.

36. It is a remarkable example of the almost universal truth, that practice has always preceded theory, that even the practice of science long preceded the theory of science. Thus, from the days of Diophantus, it was perfectly well known as an empirical rule that in Algebra — \times — gives +. But though that was the rule universally adopted in practice, because no other would lead to right results, algebraists were wholly unable to explain the reason of it. It was wholly unknown to Newton, and when he tried to explain it, the great Euler babbled like a child.

37. The real explanation has only been given within the present century, and is known by the name of the *Separation of the Signs of Position and Operation*.

Writers who are not versed in Natural Philosophy, have no conception of the signs + and — meaning anything but *addition* and *subtraction*, whereas every one who knows anything of the subject, knows perfectly well that the symbols +, 0, and —, have an immense variety of meanings in Natural Philosophy, according to the particular circumstances under which they occur, and it is wholly impossible to determine their meaning, until we know the particular state of circumstances, out of which they arise.

38. We have shown (CONTINUITY, LAW OF) that every great science is founded upon some single idea, or conception, or quality, which must be of the most general nature, and that every quantity whatever, in which that quality is found, is an element in that science, no matter what other qualities are found in it.

Now, as Political Economy is the science of exchanges, or of values, it necessarily follows that every quantity whatever, which is capable of being exchanged or valued, must be an economical element, no matter what its nature be, enduring or evanescent, corporeal or incorporeal.

39. But these elements in the various sciences may be endowed with *opposite* qualities, and when they are so, it is universally the custom in Natural Philosophy to distinguish them by the signs + and —.

They are then called signs of position, or of affection.

The instances of this that might be quoted from the various branches of Natural Philosophy are innumerable, and we will only quote a few to illustrate our meaning, and to furnish analogies to guide us to the solution of the perplexities of Political Economy.

Thus in Algebraical Geometry, in which it is necessary to fix the position of lines, it is usual to take some fixed point called the origin, and then lines drawn in *opposite* directions from that if the lines drawn to the *right* of this point are distinguished by the sign +, those drawn to the *left* are denoted by the sign —. If those drawn up from it are +, those drawn down from it are —.

So if a line revolving in one direction be +, when it revolves in the other it is —.

So if two mechanical forces act in *opposite* directions, they are distinguished by opposite signs.

So if an accelerating force be denoted by +, a retarding force will be denoted by —. And a retarding force may be called a negative accelerating force, and an accelerating force may be called a negative retarding force.

The engines of a steamer going a-head may be denoted by +, when going astern by —.

A curious instance of this may be cited from steam navigation. Owing to the resistance of the water, the paddles and the screw of a steamer do not, in general, propel the vessel through the water so fast as they would do if there were no resistance. This loss of speed is called the *slip*. But in the case of the screw, by giving the stern of the vessel a particular shape, the paradoxical result may be produced, that she may actually be made to go faster through the water than she ought to do, if the screw were working in a solid. Thus, in this case, the difference between the theoretical and the actual speed is a *gain* instead of a *loss*, and this is called the *negative slip*.

So also in Parliament the supporters of Government may be called + and its opponents —.

40. Now in many of these cases it may happen that the elements endowed with opposite qualities may balance each other, and the result be 0; but it would manifestly be an error of the greatest magnitude to say that because these elements may, under some circumstances, neutralize each others effects, that is exactly the same thing as saying they don't exist at all.

Suppose that on a division, the numbers for Government were 340, and the numbers against, 300. Now it is clear that on this occasion the strength of the Government is practically 40, because the — 300 neutralize the effect of the + 300. But it would clearly be an enormous error to say that is absolutely just the same thing as if these 600 members did not exist at all. It is perfectly clear that there are 640 Parliamentary units. It is quite clear that to find the total number of Parliamentary units we must *add* the opposition to the ministerialists, and not *subtract* them.

41. Now this idea of opposition is applied to a continuous line, or to motion in a continuous line. If any point be taken as 0, then the part of the line on one side may be denoted by +, and the part on the other side by —.

Thus in a thermometer some fixed point is taken as 0, and degrees above that are called +, and those below —.

Now if the mercury passes from a certain number of degrees on either side of 0, to any number of degrees on the other, it is quite clear that in order to find the total number of degrees passed over, the degrees on both sides must be *added* together.

42. The same idea is applied to TIME in Natural Philosophy, which may be considered as motion in a continuous line. If any point be taken, such as the present moment, or any fixed era, then the time on opposite sides of this point will be denoted by opposite signs. Thus if we call time, whether years, weeks, or days, *before* this era +, then time *after* this point will be —, and expressed, thus,—

...7,6,5,4,3,2,1,0,—1,—2,—3,—4,—5,—6,—7,... where we see that the — means simply *futurity*, and nothing else, and is a sign of position.

It is quite clear that if we want to find the number of years between any event which happened some time before this epoch, and another which happened after it, we must add the number of years on both sides of 0.

43. These illustrations, which might be immensely extended by examples taken from every branch of Natural Philosophy, are sufficient to exemplify the doctrine that we have endeavoured to explain, that, universally, in Natural Philosophy the *negative* sign — does not mean *negation*, or non-existence, but *ORRORROR*, and that *negative* quantities have as real and independent an existence as positive ones, and are to be enumerated separately and independently, as elements in that science, to find the totality of elements.

44. But, moreover, inverse or opposite operations may be performed on these quantities which are already affected by opposite signs. And these inverse operations are also denoted by the same signs + and —. And the combination of these opposite signs of inverse operations with the signs of opposite qualities affecting these quantities, that is, the combination of the signs of position and operation, give rise to the well-known Algebraical rules,

$$\begin{array}{rcl} + \times + & \text{gives} & + \\ + \times - & " & - \\ - \times - & " & + \\ - \times + & " & - \end{array}$$

These laws, which are universally applicable in Natural Philosophy, are equally applicable to Political Economy, and among other things, are alone capable of giving the solution of the Theory of Credit, which has hitherto been the opprobrium of the science.

It will be found that there are Economical Elements of inverse, or opposite, properties, and therefore following the strictest analogy with physical science, we shall denote them by *opposite* signs, and also opposite operations may be performed on these opposite quantities bringing into play the well-known Algebraical Rules, which will lead to consequences that may surprise some of our readers.

45. As an example that will furnish us with an important analogy, we will give this one. As any opposite, or inverse operations whatever may be denoted by the signs + and —, to *add to*, and *take away* from, are manifestly inverse, and may be denoted by these signs. Now suppose that in the House of Commons, the Government has 358 supporters, and 300 opponents, then the Government

strength may be denoted by 358—300. Now for practical purposes the strength of the Government may be called 58, and in so far as regards that, the + 300 and the — 300 neutralize each others' effects. But it would be a most grievous error to say that for *all* purposes it is just the same thing as if these 600 numbers did not exist at all. It is clear that to find the total number of members we must *add* the opposition to the ministerialists, and not *subtract* them. Moreover, if we add (+) to the ministerialists (+), we increase (+) the government strength. If we take away from (—) it, we diminish (—) it. On the other hand, if we add (+) to the opposition (—) that diminishes (—) the strength of the Government: but if we take away from (—) the opposition (—) that *increases* (+) the strength of the Government.

Hence the taking away of opponents (— —) gives an increase (+) of strength.

We shall now show the application of these principles to Political Economy.

46. We have defined Property, as every lawyer knows, to be a right residing in the person. Now it is quite evident that a person may have in himself a right to an actually existing thing, the produce of the past, and he may also have the right to receive things which do not actually exist at present, but will only come into existence at some *future* time. But each of these is Property, or Wealth, and consequently the totality of a man's wealth is the *sum* of the two. Now following the ordinary custom of Natural Philosophy, if we denote the accumulated products of the past which already exist by the sign +, we may denote the products which will only come into existence at some future time by the sign —.

47. Let us now examine the Theory of the Value of Land, which may be called the grammar of the Theory of Value.

In what does the value of land consist?

Suppose we purchase an estate in land for £100,000, where is the value of our money? Does it consist in things which have a present existence? The veriest tyro will answer—Certainly not. Where then is the equivalent for the purchase money?

Every one knows that the purchaser of the land buys the right to receive the actually existing produce of the land, *together with* the right to receive its annual profits for ever, say £3,000 a year. Now, as these annual profits only come into existence year by year in future time, we may denote the equivalent of the purchase money in the following way:—

Existing produce of land, — £3,000, — £3,000 — £3,000 — £3,000, &c., ad infinitum, where the sign — of course denotes *futurity*.

Now, each one of these future profits has a Present Value, and the purchase money of the land is simply the sum of the Present Values of this series of profits for ever.

Any, or any number of these future profits, may belong to different persons, giving rise to the whole doctrine of estates in remainder, and in reversion, &c.

Now we may say that when a purchaser has paid for the land, it owes him a series of annual payments, as he bought it merely on the *belief* that he would receive them; and we may call this the *credit* of the land.

Hence the present value of each of these future

payments for ever, is an actually existing article of property, and by our definition — Wealth. And if we buy the land at 33 years' purchase, it is clear that 32 parts of the value of the land have no actual existence at all, but consist merely in the abstract right to receive them when they come into existence.

48. So also if we buy an established business, we have to buy, not only the premises, and the stock-in-trade on them, but also the right to receive the future profits of the business. This property is called the *GOODWILL*, and it is clear that it is purely incorporeal property, lying wholly in the future, and therefore *negative*, according to our notation.

That the goodwill of a business is a valuable species of property, is so well known to every trader, that it seems almost superfluous to mention it. We may quote, however, one instance, which may interest our readers. We are told in Boswell (Vol. IV. p. 86, edit. 1822), that Johnson was appointed by the great brewer, Thrale, one of his executors. In that capacity it became his duty to sell the business. When the sale was going on, "Johnson appeared, bustling about, with an inkhorn and pen in his button-hole, like an exciseman; and on being asked what he really considered to be the value of the property which was to be disposed of, answered, 'We are not here to sell a parcel of boilers and vats, but the *POTENTIALITY* of growing rich beyond the dreams of avarice.'" Now this latter phrase was merely a Johnsonian expression for the goodwill. The price realized on this occasion was, we are told elsewhere, £135,000. Now it is clear that this sum was not given for the boilers and the vats only, the material, and the result of *past* labour, but also, and by far the greater part, for the incorporeal *potentiality* which lay wholly in the future. Now this *potentiality* could be bought and sold, but it was not material; it could not be handled nor seen, but its value might be measured, and therefore it was a valuable thing—it was *Wealth*.

49. So the printed copies of a book are the produce of past labour, but the *COPYRIGHT* is the right to receive the future profits to be made by it. The value of the copyright clearly lies wholly in the future, like that of the goodwill.

50. When a professional man has established a good practice, the right to receive the future profits of it is a valuable property, and is denominated a *PRACTICE*, which is clearly of an analogous nature to those just described.

51. So the capital of a company is the accumulation of past labor, the *SHARES* in it are the right to receive the future profits to be made by trading with the capital.

52. Now it is manifest that the right to receive these future profits is cumulative property, over and above the produce of the past, and moreover it is quite separate and independent exchangeable property, distinct from the actual profits received. Thus manifestly the goodwill of a business is property, quite distinct from the profits actually realized; the copyright of a work is property, quite distinct from the profits realized by the sale of it; the shares in a company are quite separate property from the profits actually made; and generally, any annuity whatever is

separate and independent property from the actual payments.

53. Now Adam Smith, and all Economists since his time, admit that the useful abilities of the people of the country, are part of the wealth of the country. Consequently every merchant in business making an income, is himself an article of wealth, because his talents, industry, &c., may be valued. The money he has earned is the produce of his past industry, and he may trade with it. But he may also trade with the *future* proceeds of his industry. He may sell the right to a future payment out of the future proceeds of his industry. And when he does trade by selling this right, this property is called *CREDIT*.

Now, we observe that a merchant's credit is cumulative property, over and above his money, and quite separate from money and commodities of all kinds. And though, no doubt, his credit is based upon confidence, because no one would sell his goods to him in exchange for his promise to pay, unless they believed he would pay his promise, still we must observe that Credit does not mean the confidence, as many writers suppose, nor yet the transfer of the goods, as many more suppose, but an actual transferable right, which is exchangeable property, and is *Wealth*.

54. Hence we have this great fundamental doctrine of transcendent importance, and involving the most momentous consequences to the world, that over and above existing money and commodities, the *RIGHT* to receive future payments of all sorts, is separate and independent property. In other words, that every future payment, of every sort and description, has a *PARENT VALUE*, quite independent of the payment itself, which is valuable property, or *Wealth*.

55. This stupendous mass of property receives different names, according to the different sources of payment. When arising out of the land, it has no particular name, but yet it constitutes 32 parts out of 33 of the value of the land; when the source is a shop or a warehouse, it is called the *GOODWILL*; when the source is books, prints, or works of art, it is called *COPYRIGHT*; when the source is a mechanical invention, it is called a *PATENT*; when the source is a professional business, it is called a *PRACTICE*; when the source is the capital of a trading company, it is called a *SHARE*; when the source is an ordinary commercial transaction, it is called *CREDIT*; when the source is an annual payment, guaranteed by the Government out of the public revenue, it is called the *FUNDS*.

Besides this there are many other species of annuities of a similar nature, such as tolls, ferries, ground-rents, &c.

56. Hence we see that credit is, in fact, the lowest form of an annuity; it is an annuity of one term; it is the right to receive a single future payment; the other species of property are the right to receive an indefinite number of them.

What the value of this gigantic mass of property in this country may be, it is utterly impossible to form the most distant conception, but there can be no doubt that at least nine-tenths of the property in this country exists in this form.

And yet, except Credit and the Funds, whose nature has been completely misunderstood, there is not a word about it in any English work on Political Economy!!

57. Having now explained the nature of this

species of property, we may exhibit the classification of property in the following form, which may, perhaps, show it in a somewhat clearer form.

If we denote the products accumulated up to the present time by +, those which will come into existence at a future time may be denoted by —, and of course 0 denotes the present time. Thus:—

THE PRODUCE OF THE PAST.	PRESENT TIME.	THE PRODUCE OF THE FUTURE.
+	0	—
Lands, Houses, &c.	Annual Income for ever.
Premises, Stock of Goods in a Shop, &c.	The Goodwill.
The Printed Copies of a Book	The Copyright.
Machines already made	The Patent.
The Money earned by a Professional Man.	The Practice.
The Capital of a Commercial Company	The Shares.
The Money already earned by a Merchant	His Credit.
	..	{ Annuities of all sorts, the Funds, Tolls, Ferries, Ground-rents, &c., &c.

Now, the whole of this mass of incorporeal property is either entirely omitted from works on Political Economy, or its nature misunderstood. But it must manifestly be included in it. And it clearly doubles the extent of the science, or gives it the same extension that Algebra did to the field of Arithmetic, by extending it on both sides of 0 to infinity.

58. The species of Property called Credit being bought and sold to the amount of millions of money daily, it is necessary that there should be some unit of debt, or of credit. And the unit of debt, or of credit, is £100 payable one year hence.

59. Moreover the method of expressing the price of this species of property is peculiar.

When goods are sold for money, the quantity of money given is called the *price*. The less the quantity of money given for any goods, the greater is the value of money respecting those goods. And supposing the quantity of money necessary to purchase any particular amount of those things undergoes a change, the value of money *rises* as the price *falls*, and the value of money with respect to those goods *falls*, as the price *rises*. Thus the value of money varies *inversely* as *Price*.

Now the value of money with respect to debts, which are in fact commodities, must follow exactly the same rules, as with respect to other things. The value of money with respect to debts must *rise* as the price of the debt *falls*, and the value of money must *fall* as the price *rises*. Now as money naturally produces a profit, it is clear that the money, or the price to be given for a debt payable one year hence, must be less than the amount of the debt. The difference between the price of the debt and the amount of the debt is called the *Discount*. In buying commercial debts, the amount of the discount is always mentioned, and never the price of the debt. Thus suppose the buyer gives £97 for a debt of £100 payable one year hence, it is usual to say that he *discounts* it at 3 per cent. When it is said that discount is at 3 per cent. it means nothing more than that debts of £100 payable at

twelve months date are selling for £97. Now if the value of money rises with respect to debts, it is clear that the *price* must *fall*, which is clearly the same thing as saying that the *discount* must *rise*. If the price of the unit of debt falls from £97 to £93, the discount rises from £3 to £6, and also the value of money has risen.

Hence the value of money varies *inversely* as *Price*, and *directly* as *Discount*.

60. These considerations shew that Mr. Mill's censures on the expression value of money, as applied to the rate of discount, are quite unfounded. He says, *Principles of Political Economy*, Book III., ch. VIII.

"It is unfortunate that in the very outset of the subject, we have to clear from our path a formidable ambiguity of language. The value of money is to appearance an expression as precise, as free from possibility of misunderstanding, as any in Science. The value of a thing is what it will exchange for, the value of money is what money will exchange for; the purchasing power of money. If prices are low money will buy much of other things, and is of high value; if prices are high, it will buy little of other things, and is of low value. The value of money is inversely as general prices, falling as they rise, and rising as they fall.

"But unhappily the same phrase is also employed in the current language of commerce in a very different sense. Money, which is so commonly understood as the synonyme of wealth, is more especially the term in use to denote it when borrowing is spoken of. When one person lends to another, as well as when he pays wages or rent to another, what he transfers is not the mere money, but a right to a certain value of the produce of the country, to be selected at pleasure; the lender having first bought this right by giving for it a portion of his capital. What he really lends is so much capital; the money is the mere instrument of transfer. But the capital usually passes from the lender to the receiver through the means of money, or of an order to receive money, and at any rate it is in money that the capital is computed and estimated. Hence, borrowing capital is universally called borrowing money; the loan market is called the money market; those who have their capital disposable for investment on loans, are called the monied class; and the equivalent given for the use of capital, or in other words, interest, is not only called the interest of money, but by a grosser perversion of terms, the value of money. This misapplication of language, assisted by some fallacious appearances, has created a general notion among persons in business, that the value of money, meaning the rate of interest, has an intimate connexion with the value of money in its proper sense, the value or purchasing power of the circulating medium."

From the considerations we have presented, it is quite clear that this censure is unfounded. The language of the commercial classes is quite correct, and no other would be appropriate. When they say that the value of money has risen because discount has risen, it is only another form of saying that the price of debts has fallen.

61. In fact, nearly all the confusion on the subject of credit has arisen, as it so frequently does, especially in Political Economy, from an ambiguity of language. The ordinary charge that Economists, echoing J. B. Say, bring against those who

say that credit is capital, is that by saying so, they maintain that the same thing can be in two places at once. They consider credit to be the loan of some material thing called capital, and then they say, how can two persons have the use of this same capital at the same time? Now this confusion purely arises from their own misconception of the nature of credit, for credit is not the transfer of capital, but the name of a species of property. Moreover the expressions to *lend* and to *borrow* are ambiguous. If I lend my friend a book, or a horse, I do not part with the *property* in the horse, or the book; there is but one property, and of course I cannot have the use of the horse or the book at the same time that my friend has. The horse or the book cannot be in two places at once. But in commerce, the words to lend, and to borrow, have quite a different meaning. A commercial loan is in fact a *sale*. If as above, I lend my friend a horse or a book, he is bound to return me that very horse and that very book. But it is not so in commerce; in a commercial loan, the property in the money passes absolutely to the borrower, and he gives in exchange for it, the right or property to demand an *equal* sum of money at some future time, but not the *identical* sum of money.

The distinction between these two meanings of the word "loan," is well illustrated in Latin. For it has two words corresponding to these two meanings, *commodum* and *mutuum*. A *commodum* is where, like in the case of a horse or a book, the property in the thing lent remains with the lender, and the identical thing is returned. A *mutuum* is where the property in the thing passes from one to the other, and in exchange for it is given the right to demand an equivalent at some future time. Now, from the word used, it is clear that it is an exchange. All commercial loans are *mutua*, and not *commoda*.

And this abstract right is a new property called credit. Hence every commercial loan is a sale, in which a new property, called a debt, is created by the consent of the parties, and these debts form an article of commerce, like any other commodities.

62. And now, at last, we perceive the true mode of reading the connection between A and B, as expressed above, which Mr. Thornton has so misunderstood. When A holds B's bill for £50, and the property of the one is expressed by £100+£50, and that of the other by £100-£50, the +£50 and the -£50 do not *cancel* one another, as Mr. Thornton supposed, nor do the + and the - denote addition and subtraction, as he supposed, but they are in fact symbols of *TIME*. And the sentence is to be read thus:—"A has, besides £100 in money, the present (+) right to demand a future (-) payment of £50 from B."

And this is manifestly the way in which all annuities, or present rights to future payments, may be expressed. When the landlord's property is denoted by property + rent, and the farmer's by property - rent, it means that the landlord has a present right to demand a future rent from the farmer. And if every man's property is expressed by +, his obligations are denoted by -, and his property may be stated thus:—

Property—Obligations.

Now, for certain purposes, it may be said, perhaps, that a man is only substantially worth

his property less his debts, or his obligations. But as far as regards Political Economy generally, that would be a very erroneous mode of statement. Because the fact is, that although his obligations may *neutralize* the effect of an equal amount of his property, so far as he is concerned, yet both his property and his obligations are independent exchangeable property, and may circulate independently in commerce, and are therefore each of them, by virtue of the definition, *Wealth*.

To shew this, we need only refer to the standard case of Credit, that of a Banker. We might say that, practically, a banker was only worth the excess of his assets over his liabilities, and that would be sufficiently correct as far as he is concerned. But for the purposes of Political Economy, it would be extremely wrong, because the banker's assets belong to himself, and he may put them into circulation, and at the same time his obligations may be put into circulation as well. Consequently, here are two classes of economic elements; and as each is capable of being exchanged separately, they must *both* be included under the economic name of *Wealth*.

63. To say, therefore, as Mr. Thornton does, and as is the common way of looking at the matter, that because a man's obligations neutralize an equal amount of his property, and he may be considered substantially worth only the excess of his property over his debts, that therefore it is just the same thing as if his obligations and an equal amount of his property did not exist at all, is an error of as great a magnitude as to say that because the strength of the Government is substantially only the excess of their supporters over their opponents, that it is just the same thing as if their opponents and an equal number of their supporters did not exist at all. It is quite clear that for other purposes, each of them exists as Parliamentary units.

Hence, when a man has a certain amount of property, and has also given forth a certain amount of obligations, they are to be treated as separate and independent articles of property, but of opposite effects, like the supporters and opponents of a Government.

64. We also see how erroneous Mr. Thornton's views are in other respects. He says that when a banker has discounted £20,000 for the merchants, and issued £20,000 in his notes, that if he writes himself down as creditor for the merchants' acceptances, he writes himself down debtor to an equal amount to the holders of his notes, and therefore upon the whole he is exactly as he was before. In the first place, a banker never issues an amount of notes equal in amount to the bills he discounts, because if he did so, that would mean he charged nothing for discount. He always retains the amount of the discount at the time. And supposing the discount to be 5 per cent., and the bills at 12 months, in exchange for the £20,000 in bills, he would only issue £19,000 in notes; consequently, even according to Mr. Thornton, his property would be increased by this sum of £1,000 by the operation.

But the fact is, Mr. Thornton's view is fundamentally erroneous in other ways. He says that because the banker and the merchant each credit themselves with the same sums, and debit themselves with the same sums, it is therefore exactly the same thing as if these obligations did not exist

at all; and that because the merchant and the banker hold each other's obligations, that therefore they cancel and extinguish one another. This is utterly erroneous. The merchant's bills are valuable property, capable of circulating in commerce, and the banker buys this property by creating another property, namely, his own notes, which are also capable of circulating in commerce. Hence it is not a cancelment of debts, but an exchange of valuable properties, both of which may, and do, circulate in commerce. The debts are not cancelled until the bills are given up to the merchant and the notes given back to the banker. Then, no doubt, each of these properties is extinguished and taken out of circulation. But while they are in existence, they each have circulating power.

65. Hence we see the enormous importance of a very careful attention to the mode of stating the facts in Political Economy.

A man's property and his obligations being then analogous to opposite quantities, we have manifestly the following laws:—

If we add (+) to his property (+), his obligations (—) remaining the same, that is an increase (+) of property.

If we take away (—) from his property (+), that is a diminution (—) of his property.

If we add (+) to his obligations (—), that is in effect a diminution (—) of his property.

But if we take away (—) from his obligations (—), that is in effect an increase (+) of his property.

Hence we obtain this doctrine in commerce,—**A RELEASE FROM A DEBT IS AN AUGMENTATION OF CAPITAL.**

We shall see afterwards that this doctrine leads to consequences of the most momentous nature in commerce, which may possibly surprise some of our readers.

66. To shew the extreme attention necessary to state an economic problem, we will quote from the works of two very eminent mathematicians.

Euler says (*Algebra* p. 7.—Edit. 1797.)—"The manner in which we generally calculate a person's property is an apt illustration of what has just been said. We denote what a man really possesses by positive numbers, using or understanding the sign +, whereas his debts are represented by negative numbers, or by using the sign —. Thus, when it is said of any one that he has 100 crowns, but owes 50, this means that his real possessions amount to $100 - 50$, or which is the same thing, $+ 100 - 50$, that is say 50.

"As negative numbers may be considered as debts, because positive numbers represent real possessions, we may say that negative numbers are less than nothing. Thus, when a man has nothing in the world, and even owes 50 crowns, it is certain that he has 50 crowns less than nothing; for if any one were to make him a present of 50 crowns to pay his debts, he would still be only at the point nothing, though really richer than before."

It is quite easy to shew that the first paragraph is not a suitable mode of stating the question in Political Economy. For suppose that a man has 100 crowns and is bound to pay 50 crowns one year hence. It would be manifestly quite inaccurate to say that his property was only ($100 - 50$) or 50 crowns. And yet his property would

be correctly stated $100 - 50$. Here it is quite clear the 50 crowns are not to be subtracted from his present property. Now by the *Law of Continuity*, the same must be true if we diminish the period of payment gradually from one year by small gradations of a day at a time, till we reduce it to 0, or make his debt payable on demand. The fact is that it means he is bound to exchange some of his property for his obligation at a given time.

So in the second paragraph, when he has nothing to pay and owes 50 crowns, he is said to have less than nothing. This clearly means that he has not only spent the accumulation of his *past* industry, but has also spent the anticipated proceeds of the *future*, and the negative sign clearly means futurity. Now let us suppose that having done so, as Euler says, some one makes him a present of 50 crowns to pay his debt, he is clearly 50 crowns richer than before, but yet his property is now only $= 0$. This is an example of $+ \times +$ giving $+$. But there is another combination of Algebraical symbols which gives $+$, namely $- \times -$; and there is another method in commerce of arriving at the same practical result. Suppose his creditor *releases* him from his debt, his property would then be $= 0$, and he would also be 50 crowns better off than before. This clearly shews that the release (—) of a debt (—) is the same thing as an increase (+) of wealth.

The whole subtlety in the case is in distinguishing between one quantity being equal and opposite to another, and therefore neutralising its effects, and taking it way altogether. The opposition in Parliament do not take away, or subtract, an equal number of ministerialists, they only neutralize their effects. To take away from the opposition does not add to the government numbers, it only takes away a quantity which neutralized their effects.

67. Another very eminent writer, Dr. Peacock, Dean of Ely, after saying that property and debts may be symbolized by + and —, says, (*Algebra*, 1st Edit., p. 77.) "if a denoted property possessed, and — a debt, $\sqrt{-1}$ a might denote property neither possessed nor owed, such as a mere deposit would be."

Dr. Peacock has explained his ideas at greater length at p. 366, *Art.* 447, of the same volume. He says—"There are many cases, however, of quantities which cannot be represented, unless symbolically, by lines, which are susceptible of affections denoted by + and —, which are appropriate to their specific nature: thus, if a represented property possessed, — a may represent the same property owed; under such circumstances, what is the meaning which may be attached to a $\sqrt{-1}$ and — a $\sqrt{-1}$?"

If we consider the succession of quantities

$$a, a \sqrt{-1}, a (\sqrt{-1})^2, a (\sqrt{-1})^3,$$

or,

$$a, a \sqrt{-1}, -a, -a \sqrt{-1},$$

and if the first represents property possessed, and the third property owed, the second can neither represent property possessed nor owed, under the same circumstances or by the same person, inasmuch as in such a case, it would be symbolically represented by a or $-a$: it may represent, however, property deposited, which admits of similar relations when considered as property possessed and property owed by another person;

under such circumstances, the *affection* of a denoting property possessed by A by the sign $\sqrt{-1}$, would convert it into property possessed by B : and the *affection* of $a \sqrt{-1}$ by $\sqrt{-1}$, would convert property possessed by B into property owed by A : thirdly, the *affection* of $-a$ by $\sqrt{-1}$ would convert property owed by A into property owed by B : and fourthly, the *affection* of $-a \sqrt{-1}$ by $\sqrt{-1}$ would convert property owed by B into property possessed by A : the repetition of the process of *affection* by the sign $\sqrt{-1}$, would reproduce continually the same succession of transfers of property from A to B , and of conversions of property possessed into debt, and of debt into property possessed, which is required to correspond to the succession of the same symbolical results.

"In this case, the interpretation of the sign $\sqrt{-1}$ which we have given, satisfies the symbolical conditions, and also coincides with the interpretation of the meaning of the signs $+$ and $-$, which is otherwise established: we cannot give it the additional authority of the coincidence of this interpretation with the interpretation of the meanings of the quantities corresponding to a^2 and $-a^2$, for those quantities in the case under consideration admit of no interpretation."

68. With all deference to so great a writer, we think this view is not correct. In fact, there is no such thing as *property owed*. The debt itself is an article of property, which must have arisen out of some previous exchange, and what is really meant by saying that a man is in debt is, that he must exchange some of his property to buy this debt. Now the symbol $\sqrt{-1}$ denotes that operation which being twice repeated, changes $+$ into $-$.

Hence, if this symbol is applicable to Political Economy at all, it must denote the operation which, being twice repeated, changes property into a debt. But depositing a thing twice with a man does not change property into a debt. Nor does it transfer the property. These are single operations of the will, and, therefore, it appears to us that Political Economy is a science to which the symbol $\sqrt{-1}$ is not applicable.

69. After venturing the criticism contained in the preceding paragraph on the views of Dr. Peacock, we have had the great satisfaction of finding that Professor De Morgan has expressed similar sentiments in the article *Algebra* in the English Cyclopædia. He says: "It is impossible that a perfect Algebra can be founded on ideas of time, loss and gain, or any in which only two directions can be imagined. Space, from the infinity of directions which it admits, is as yet the only perfect medium of explanation. Time before and time after a certain epoch may be represented by the positive and negative quantity; but what is there in the idea of time to which the sign $\sqrt{-1}$ can possibly apply? Again, shew us a commercial operation which performed upon a gain, produces a sort of result which can neither be called gain nor loss, but which repeated *two* or more times upon a gain turns it into a loss — and we can immediately see a system of commer-

cial Algebra in which $\sqrt{-1}$ shall be intelligible."

70. As this point is, in fact, the greatest subtlety in Political Economy, and involves consequences of the most momentous nature, which we dare say our readers little dream of at present, but which are fully explained afterwards, we shall extract what Dr. Peacock has said in the 2nd edition of his *Algebra*, p. 15.

"We conclude our observations upon this subject with the discussion of one more example of a problem of very extensive application.

"A merchant possesses a pounds and owes b pounds; his substance is therefore $a-b$, where a is greater than b .

"But since a and b may possess every relation of value, we may replace b by $a-c$, or by $a+c$, according as a is greater or less than b ; in the first case we get

$$a-b = a - (a-c) = c$$

and in the second

$$a-b = a - (a+c) = -c$$

If c therefore express his substance or property, when *solvent*, $-c$ will express the amount of his debts when *insolvent*: and if from the use of $+$ and $-$ as signs of affection, or quality, in this case, we pass to their use as signs of operation, then inasmuch as

$$a + (-c) = a - c \text{ and } a - (-c) = a + c$$

it will follow, that the addition of a debt ($-c$) is equivalent to the *subtraction* of property c of an equal amount, and the *subtraction* of a debt ($-c$) is equivalent to the *addition* of property c of an equal amount, and it consequently appears that the subtraction of a debt, in the language of symbolical algebra, is not its *obliteration* or *removal*, but the change of its affection or character, from money or property owed, to money or property possessed."

71. We hope we shall succeed in shewing that the views expressed in this latter paragraph are not correct.

In the first place we must say that there is no such thing as *property owed*. A debt in commerce is a species of property itself, which was created in exchange for some property. And when a man is in debt it means that he is bound to buy up, or exchange some part of his property for, this debt. But there is no particular part of his property which he may be said to owe more than another. His property is absolutely his own, and indeed he may spend it all and leave his debts unpaid.

Now as a debt always arises out of an exchange, and must necessarily do so, an addition of debt also arises out of an additional exchange. It is a new property created in exchange for more property. Hence to *add* and to *subtract* a debt, is in fact to *create* and to *destroy* property. As we shall shew.

A banker receives £100 in money from his customer, and in exchange for that, he creates £100 of debt, which is the property of his customer. His property is then stated

$$£100 - £100 = 0$$

Now arguing according to the common mode, that means there is no property at all in existence, a conclusion that is manifestly erroneous.

It is perfectly true that, so far as regards the banker himself, he may be said to be no richer

than he was before, but as regards Political Economy—and it is the master subtlety of the subject—the effects are very different. The banker has now £100 in money, which is his own property, which he may trade with and make a profit out of. And his customer has £100 as well, in the banker's notes, with which he can buy anything he wants, as well as with money. Hence there are *two* circulating and exchangeable properties instead of *one*. And though no doubt the banker is always liable to be called on to exchange some of his gold for his liabilities, yet, the very business of banking is based on the probability that he will *not* be called on to do so to any very appreciable amount at any one time.

Now let us suppose that for some reason or another, the customer or creditor chooses to release the banker, his debtor, from his debt, to the amount of £50 say. Then the banker's property would be stated thus,

£100 — £50

and therefore the banker would have gained a practical augmentation of his property. But it would not be, as Dr. Peacock says, by converting property owed into property possessed, but by the *destruction of the debt*.

Just in the same way as a government would gain not a greater numerical amount of supporters but a practical augmentation of strength, by the removal of a number of its opponents.

By cancelling the debt, therefore, the debtor is released from the necessity of a future exchange, which is no doubt to him a practical augmentation of wealth, but yet so far as concerns Political Economy, is a destruction of property.

By this operation his assets remain exactly as they were before, but his liabilities are diminished.

When, as we have shewn below, it entirely depends on these subtle considerations, whether three-fourths of the capital of the Bank of England, and all the Joint Stock Banks in the country, has any real existence at all, our readers will perceive the immense importance of clear ideas on the subject.

72. From the considerations in the preceding paragraphs, we draw these important conclusions:

That in Political Economy the signs + and —, as Signs of Position, symbolize TIME.

As signs of Operation, they mean addition and subtraction, or creation and destruction.

73. We have now, we think, fully explained the nature of credit. It is the present right to a future payment. And of course the value of the instrument entirely depends upon the payment being made. *For the value of the promise is the payment*. If, therefore, the payment cannot be made, the promise has lost its value, and there is a loss of property.

74. The considerations we have presented, furnish us with an answer to a question of the most momentous importance, which has been a great perplexity to many speculators on the subject. It is this: What are the true LIMITS of Credit?

Now as Credit is the right to a future payment, or a future profit, it is manifest that the number of future payments, or profits, are the Limit of Credit; every future payment whatever has its present value, and therefore up to that limit *Credit* may be created. But it is manifest that Credit cannot properly exceed that limit.

Hence, we see at once, another most important distinction in the fundamental nature of a Bill of Lading and Dock Warrant, and Bill of Exchange, and other forms of credit. Because the former documents are absolutely restricted to the *actual quantity* of the goods they represent, and can by no possibility exceed them. But instruments of Credit are founded on the *number of Transfers* of Property, and every transfer of property gives rise to a creation of Credit. Hence, if there be 20 transfers of the same property, 20 Bills of Exchange may be created. But if the same property pass through as many transfers, the same Bill of Lading goes with it always.

75. Hence, we see at once the fundamental error of John Law's ideas of Credit and money, which are very extensively prevalent at the present time. He saw that a merchant's obligations generally exceeded his cash by at least tenfold. He thought that instruments of credit represented money, and then he argued—Why not turn all the property in the country into paper currency, just as money is represented by paper? and such paper he maintained would retain an equality of value with money. But, alas! when these plausible ideas came to be put into practice, they totally failed, and produced the most terrible convulsions. When the French Government issued assignats representing the territory of France, so far from maintaining their value on an equality with silver, they ultimately fell to the 30,000th part of the value of silver (*Assignats*), and all attempts to found a currency upon such principles, have failed (*LAW*).

76. But while the same goods can never give rise to more than one Bill of Lading at the same time, which is extinguished by the delivery of the goods, a quantity of money may discharge and extinguish any number of instruments of Credit, by simply paying them in succession, and there is no absolute relation between the quantity of money and the quantity of Credit in a country. All that is required is that when the payment falls due, the obligor has money to discharge it. The quantity of Credit that may be created purely depends on the *number of transfers*, or the *circulation* of money.

77. It is entirely from a miscalculation of these transfers that commercial catastrophes arise. Sanguine speculators expect that the price of goods will rise, or that there will be a great demand for them. Upon the strength of the expectation of these future payments, they buy the goods with credit. A greater quantity of goods is thrown on the market, or the demand falls short of what they expected. Hence the number and amount of transfers of money which they counted on, do not take place. Consequently the profits out of which they expected to pay their bills never come, their promises lose their value, and then comes ruin and destruction on all concerned.

78. But as a debt is an independent article of commerce, like any other commodity, it may be bought and sold for any other quantity whatever, and of course, among other things, for other debts. One grand division of the great system of debt consists in buying debts by creating other debts, and each of these debts is exchangeable property. And hence we see that there is a gigantic mass of valuable property produced merely by the consent of persons, without any labor at all.

79. Having thus established the great doctrine that Credit is a species of property, and having shown that any species of property whatever, may be capital (CAPITAL), it follows of course, that Credit may be used as capital as well as any other species of property.

But how is Credit *productive* Capital?

We might, perhaps, say that the expression is tautology, because as capital is any economical element used productively, it follows that if it be capital, it must be *productive* capital.

Passing over this, however, we may now enquire how Credit can be used productively. It is manifest that this entirely turns on the meaning of the words *PRODUCTIVE* and *PRODUCTION*.

In the first place, as Credit is a substitute for money, it is clear that it may be used as productive capital, just in the same way as money is, which every one acknowledges may be productive capital.

We have shown (*PRODUCTION*) that the first French school of Economists confined the meaning of the word production, and productive labour, to the obtaining an increase of quantity. But Adam Smith and Condillac extended it to manufactures and commerce, and they very properly say, that money employed in wholesale and retail dealing is *productive capital*.

80. But how is money employed in commerce productive?

To explain this, we have nothing more to do than to look at the genuine meaning in Latin of the word *producere*. We have fully shewn under *PRODUCTION* that the primary meaning of *producere* in Latin, is not to make an increase, but simply to bring out. And it is the technical word used for *exposing to sale*. Thus Terence, *Eunuchus* I, ii, 55, says

"pretium sperans illico

PRODUCIT: vendit."

"Hoping for a good price, offers her there for sale; sells her."

And in the *Heauton timorumenos*, I, i. 90—

"Ancillas, servos,

Omnes PRODUXI ac vendidi."

"All the slaves, male and female, I put up for sale, and sold."

So to produce is to *draw forth*—to *cause to come near*. To produce, in English, is not confined to making or obtaining, or manufacturing, but to *produce* a thing is simply to place it where it is wanted. If a witness is told to *produce* a deed in court, it means that he is to bring it into court and place it there. Now, if a retail dealer can, by means of money, *draw forth* goods from the shop of the wholesale dealer, and place them in his own shop, he is to all intents and purposes the *producer* of those goods as far as the customer is concerned. He sells the goods to his customer, and thus *draws forth* their price from his pocket, and as the price paid by the customer exceeds the price he paid for them, the operation has *produced* him a profit. Hence the money employed in this way has been *productive capital*.

81. Coals are wanted in a London drawing-room. The miner *produces*, or *draws* them *forth*, from the mine; the carrier *draws* them from Newcastle and *produces*, them in London, and deposits them in the cellar. The footman *draws* them *forth* from the cellar, and *produces* them in the drawing room. Hence all the series of laborers

engaged in bringing them from the mine to the drawing room grate are *productive* laborers.

Hence we see that these writers are correct in including the labor of transport, or circulation, as one species of production. Hence money is employed *productively* not only in obtaining, or manufacturing, but also in *CIRCULATING* commodities.

Now though Credit may be employed as productive capital in any operation that money can, it is chiefly in the great function of circulation, that credit is productively employed in England, though in Scotland, as we shall show below, it has been very extensively employed in other ways.

82. As a simple example of how Credit may be productively employed in retail dealing, we may take this. Suppose a retail dealer buys goods from a wholesale dealer for £100, and sells them for £140 to his customers, he has made a profit of £40, and his money has been employed as productive capital.

If he has no money, and no substitute for money, of course he could buy nothing and make no profits.

But if he has no money, still if the wholesale dealer has confidence in his character and judgment, he may agree to sell him his goods for the promise to receive payment three months hence, say, by which time he may expect to have sold the goods to his customers for money at a profit, out of which he can pay the wholesale dealer. Now, we must observe that the transaction between the wholesale dealer and the retail dealer is equally a *sale*, whether the price be paid in money, or by bill. As soon as the transaction is effected the property in the goods has passed away from the wholesale dealer to the retail dealer, as absolutely as if he had received money for them. And while the retail dealer receives the property in the goods, what he gives in exchange for them is the right, or property, to demand payment in money three months after date, a new property called into existence by the mutual consent of the parties. Now the wholesale dealer charges a higher price when paid in credit, than when paid in money, partly because the payment is deferred, and partly because there is a certain risk, that the retail dealer may not be able to pay his bill. The credit price will probably be £110, where the ready money price was £100. Now suppose that the retail dealer sells the goods to his customers for £140 as before, it is clear that the retail dealer's profit will only be £30, when it was £40 in the former case. But we see this, that exactly the same circulation of goods has taken place by means of Credit, as by means of money, and the retail dealer has made a profit where he would not otherwise have been able to make one at all. He is therefore £30 better off at the end of the transaction, when he has paid his bill, than he was before. Hence his Credit has been productively employed for himself and the public in general, just as much as money would have been. Now, says Mr. Senior, "Economists are agreed that *whatever* gives a profit is capital." Therefore is it not clear that Credit has been capital to him? Is it not clear that Credit has been productive capital in every sense that money could have been?

83. We have exhibited in the last section of this article the astounding self-contradictions of J. B. Say, who first invented the absurd notion

that those who maintained that Credit is capital, said that the same thing could be in two places at once, which has been so heedlessly echoed by many writers in this country. A house divided against itself, we are told, cannot stand. What, then, can be the authority of a writer who has put forth such contradictory opinions as we have printed side by side? We are happy to say that the most recent writers in France, on the subject of Credit, have emancipated themselves from this baseless sentence. Thus M. Coquelin says in his work, *Du Crédit et des Banques*, which contains much that is excellent on the subject, (COQUELIN,) at p. 127.—"Il est donc vrai que le crédit, devant de beaucoup en cela l'effet si lent de l'accumulation et de l'épargne multiplie presque instantanément les capitaux. Et comment? par cela seul qu'il augmente pour chacun le pouvoir d'acheter. Au lieu de réserver ce pouvoir à ceux qui ont actuellement la faculté de payer en deniers comptants, il le donne à tous ceux, et le nombre en est grand, qui offrent dans leur position et leur moralité la garantie d'un paiement futur. En d'autres termes, il le donne à quiconque est capable d'utiliser les produits par le travail. Par là il augmente d'abord le nombre des consommateurs, et particulièrement de cette classe de consommateurs qui n'achètent les produits que pour les employer à la reproduction."

Again, p. 129.—"D'un autre côté, peut-on dire que le crédit par lui-même est *productif*? Il l'est peut-être autant que le commerce, qui lui non plus ne crée, ni ne façonne les produits, bien qu'il y ajoute une valeur par le transport. C'est un mot bien vague et bien élastique que le mot *produire*, et bien subtile est la limite où son application s'arrête. Déjà l'on est convenu, et avec raison, que le commerce est *productif*. Et en effet, quelle différence générique y a-t-il entre le fait de l'homme qui extrait la houille de la mine pour la mettre au jour, et celui de l'homme qui la transporte ou qui distribue au loin? Ni l'un ni l'autre n'a créé, ou façonné la houille; l'un et l'autre ont contribué également à la rapprocher du consommateur, quoique par des moyens divers. Si le premier est un producteur, le second doit l'être; si l'on refuse ce titre à celui-ci, on doit aussi le refuser à celui-là, et voilà un produit sans producteur. Le fait est qu'ils ont concouru tous les deux à donner à la houille son utilité propre, en la mettant aux mains des consommateurs, et qu'il y a par conséquent un travail également *productif* des deux côtés. Or je demande, si l'on ne pourrait pas dire également par induction, que le crédit est *productif*, lorsqu'il évidemment c'est par son influence qu'il tant de matières brutes, précédemment perdues, ou stériles, sont sorties de leur inertie, comme la houille de la mine, pour convertir en produits façonnés ou en capitaux actifs?"

"Je n'insiste pourtant pas sur les mots, pourvu qu'on m'accorde les effets. Que le crédit soit ou non *productif*, qu'il multiplie ou non les capitaux, toujours est-il qu'à son défaut la production languit et la multiplication des capitaux s'arrête."

84. And the same writer, criticising the views of J. B. Say, in the *Dictionnaire de l'Economie Politique*, Art. *Crédit*, says:—"Le crédit ne multiplie pas les capitaux, répète-t-on avec une sorte de complaisance doctorale, il ne fait que les déplacer. D'où l'on conclut que le crédit est

peu de chose. Mais n'est-ce donc rien que le déplacement des capitaux? Dans la constitution actuelle de l'industrie, telle que la division du travail nous l'a faite, le déplacement des capitaux ou des produits est une énorme affaire; c'est tantôt le point de départ, tantôt le complément nécessaire de l'œuvre de la production. Aussi est-ce faute de réflexion qu'on se fait un argument contre le crédit de cette vérité banale. Le crédit ne fait que déplacer les capitaux, soit: mais le commerce que fait-il autre chose? N'est pas son principal office de déplacer les capitaux ou les produits pour les distribuer entre les producteurs et les consommateurs? Est-ce à dire qu'il ne soit point utile? Une route, un chemin de fer, un canal ne servent également qu'à déplacer les produits. Autant peut-on dire de la monnaie qui facilite les échanges, et des échanges mêmes, qui ne tendent pas à d'autre fin. C'est qu'en effet, grâce à la division du travail, le déplacement des capitaux ou des produits est un œuvre immense; c'est presque la moitié de la production même."

85. J. B. Say showed very well that a sale is in fact a demi-exchange. Now Credit resolves an exchange into three parts. The goods are first bought with Credit—that is a complete transaction, there is no further question until the Credit expires. Then the Credit is sold to the buyer of the goods for money, and then money is exchanged away for other goods. And each of these transactions is a complete sale. We shall shew hereafter, however, that in the great majority of cases in modern times, the payment in money is dispensed with altogether, and commercial debts are paid by creating other debts.

86. Adam Smith says the labour of wholesale dealers and retail dealers is productive labour, because it adds to the value of the goods as they pass from one hand to the other. Now this labour simply consists in buying with money, or credit, and the value of the goods is increased in one way just the same as in the other. Where, then, is the difference between money and credit, as productive capital? It is clear there is none at all. Smith says (B. i., ch. x.), "In great towns trade can be extended as credit increases, and the credit of a frugal and thriving man increases much faster than his stock. His trade is extended in proportion to the amount of both, and the sum or amount of his profits is in proportion to the extent of his trade, and his annual accumulation in proportion to the amount of his profits." Here we see that Smith places Credit on exactly the same footing as stock, and if the one is capital, how is the other not? Not only is it true, but a trader may begin without any stock at all, if he have only Credit, and by means of the profits realized by Credit, he may accumulate stock.

87. Even in the very narrow extent to which Credit was developed among the Greeks, Demosthenes says, *πρὸς Δελτίην*, p. 464, 20,—Edit. Reiske,—"*δυσὶν ἀγαθοῖν ὄντων πλούτου τε καὶ τοῦ πρὸς ἀπαντας πιστεύεσθαι, μείζον ἔστι τὸ τῆς πίστεως ὑπάρχον ἡμῖν.*"—"There being two good things, Money and Credit, our more important property is Credit." So in the *Υπὲρ Φορμίωνος*, p. 958,—"*εἰ δὲ τοῦτο ἀγνοεῖς, ὅτι πίστις ἀφορμὴ τῶν πασῶν ἔστι μέγιστη πρὸς χρηματισμὸν, πᾶν ἂν ἀγνοήσῃς.*"—"If you were ignorant of this, that Credit is the greatest Capital of all towards

the acquisition of wealth, you would be utterly ignorant."

88. The only real difficulty in the case arises from the confusion that has been caused by considering Credit to be the transfer of the capital, whereas it is the independent property that circulates as a debt. And this confusion has been greatly produced by the unfounded notion that labor and materiality are necessary to value, or wealth. Directly we observe that it is exchangeability alone which confers value, the whole difficulty of the subject vanishes. Nay, Smith himself, to whom it is generally supposed that the doctrine that labor is necessary to value is due, says, (B. II. C. II. *On Metallic and Paper Money*.) "Let us suppose that the whole circulating money of some particular country amounted at a particular time to £1,000,000. * * Let us suppose too, that some time thereafter, different banks and bankers issued promissory notes payable to the bearer to the extent of £1,000,000, reserving in their different coffers £200,000 for answering occasional demands. There would remain, therefore, in circulation £800,000 in gold and silver, and £1,000,000 of bank notes, or £1,800,000 of paper and money together." Now we see that Smith treats the paper bank notes as valuable property, exactly on the same footing as the gold. He classes them together as undistinguishable; and what are these bank notes? Simply Credit; nothing but circulating debts! Placed exactly on the same footing as gold money! Does not this make debts wealth?

In estimating the currency of the country, every one knows that the gold and silver specie is reckoned, and the quantity of paper currency is added to it. And what is that paper currency? Nothing but Credit, or circulating debts; and it is always reckoned as valuable property. So in our old writers, Bills of Exchange were always called merchandize.

89. So Mr. Justice Byles, in the preface to his *Treatise on Bills of Exchange* p. xii, says—"It will not, perhaps, be an unreasonable inference that the bills and notes of all kinds, issued and circulated in the United Kingdom, in the space of a single year, amount to many hundred millions, and that *this species of Property* is now, in aggregate value, inferior only to the land or funded debt of the kingdom." Here we see that the learned Judge treats the bills and notes as separate, exchangeable, and valuable property on the same footing as land. And as these are only Credit, or rather, merely pieces of paper on which the evidence of the credit or the debt is recorded, it clearly follows that all Credit is valuable property.

If the amount of bills and notes, and other forms of Credit, is not separate and independent valuable property, what is it?

Answer us that, Gentlemen Economists, who laugh at the notion that Credit is Capital.

We may be told that Credit is only a promise to pay, and money is actual payment. But what is money? Are not all Economists agreed that money is merely an order for goods and other things? Mr. Webster said most justly, (*BANKING IN AMERICA*, § 448,) "Credit is to money what money is to articles of merchandize." Now, money, which is a mere bill for merchandize, is valuable property separate from merchandize.

Credit, which is a bill for money, must, by a parity of reasoning, be valuable property separate from money. In truth, the payment of a bill of exchange in money is only the exchange of an instrument of general credit for one of particular credit.

90. Now it is by facilitating exchanges that money becomes productive, it multiplies operations out of which profit arises; the function of Credit is exactly the same, it facilitates exchanges to a very much larger amount than money does, it multiplies operations to a far greater degree than money ever can do, and as it is out of these that profit arises, it of course multiplies profits to many times the extent that money ever can do. Hosts of writers, some of them of the greatest name too, have treated the notion that Credit is productive capital with the greatest ridicule, as is fully shown further on, saying that it does not create products, but only gives greater activity, or circulation, to existing capital. But that is all that money does. Credit cannot make two things out of one. But neither can money. Money cannot create anything, it only imparts activity and circulation. Mr. Mill, whose self-contradictions are fully set forth further on, says that Credit is not *productive* power, but only purchasing power. But what is money? It is only purchasing power. Adam Smith shewed long ago that purchase, or circulation, is one *species of production*!

So also Mr. McCulloch, in censuring Adam Smith's assertion, that the gold and silver money of the country *produces* nothing itself, says in a note—"It is a capital error to affirm that the gold and silver used as money, *produce* nothing, on the contrary, it is quite obvious that by facilitating exchanges, and enabling the division of labour to be carried to a much greater extent than it could be under a system of barter, they are in *no ordinary degree productive*." Now, Credit does exactly the same thing as money, and therefore it is in no ordinary degree productive also.

91. Hence, whatever money can do in the way of production, Credit can do, which is not surprising, considering that money is only one form of Credit. The fact is that Credit is the *inverse* of money. To trade with money is to trade with the earnings of *past* industry, to trade with Credit is to trade with the expected proceeds of *future* industry. Hence, if money is positive, by the ordinary laws of Natural Philosophy, Credit is negative.

92. It is somewhat curious to observe the identity of thought between the early Algebraists and the Economists. The early Algebraists were sorely puzzled by the appearance of negative roots in equations. Being unable to divine their meaning, they called them *res*, or *estimaciones fictæ*, or *fictitious* roots, and this name appears so late as Descartes. Cardan was the first to discover their true signification,—that they are simply *inverse* to the positive ones, but equally real and independent quantities. The very same name is very common for paper credit. Economists very frequently call it *fictitious capital*. The least reflection will show that the analogy between money and Credit is exactly that between the positive and the negative roots of equations. The one is simply the inverse of the other. The only writer, that we know of, who has truly ex-

pressed it is Bastiat, and, alas! we have to touch him too for inconsistency on this subject. He says, (*Harmonies Economiques*, Art. *Capital*, Vol. VI. p. 219. edit. 1855), "Ce qui est plus surprenant encore, c'est que nous pouvons faire l'opération INVERSE, quelque impossible qu'elle semble au premier coup d'œil. Nous pouvons convertir en instrument de travail, en chemin de fer, en maisons, un capital qui n'est pas encore né, utilisant ainsi des services, qui ne seront rendus qu'au xx^e siècle. Il y a des banquiers qui en font l'avance sur la foi que les travailleurs et les voyageurs de la troisième ou quatrième génération pourvoient au payment; et ces titres sur l'avenir (i.e. instruments of Credit), se transmettent de main en main sans rester jamais IMPRODUCTIFS."

This is exactly the very doctrine we have been endeavouring to explain. In commerce these *titres sur l'avenir*, or instruments of Credit, are not drawn upon the third and fourth generation, but they are drawn payable three or four months hence, and are exchangeable property, and made productive capital by circulating merchandize.

93. We shall now quote from several well-known writers to show that they all maintain the doctrine, that Credit is productive capital. With respect to Adam Smith, in addition to what we have quoted above, we may refer to an examination of his opinions on Credit, in the last division of this treatise. Mr. McCulloch says in his *Dictionary of Commerce*, Art. *Banking*,—"Those who issue such notes, coin as it were their credit. They derive the same revenue from the loan of their written promises to pay certain sums, that they would derive from the loan of the sums themselves; and while they thus increase their own income, they at the same time contribute to increase the wealth of the society."

Therefore, Mr. McCulloch clearly asserts that Credit is productive capital.

94. Mr. J. S. Mill says, (*Book III. Chap. XXII. § 2.*)—"The value saved to the community by thus dispensing with metallic money, is a clear gain to those who provide the substitute. They have the use of twenty millions of circulating medium, which have cost them only the expense of an engraver's plate. If they employ this accession to their fortunes as *PRODUCTIVE CAPITAL*, the produce of the country is increased, and the community benefited as much as by any other capital of equal amount."

Therefore, Mr. Mill clearly asserts that Credit is productive capital.

95. Mr. Gilbert says, (*Logic of Banking*, p. 46).—"Bankers also employ their own Credit as capital. They issue notes, promising to pay the bearer a certain sum on demand. As long as the public are willing to take these notes as gold, they produce the same effects. The banker who makes advances to the agriculturist, the manufacturer, or the merchant in his notes, stimulates as much the productive powers of the country, and provides employment for as many laborers, as if by means of the philosopher's stone he had created an equal amount of solid gold. It is this feature of our banking system that has been most frequently assailed. It has been called a system of fictitious credit—a raising the wind—a system of bubbles. Call it what you please, we will not quarrel about names, but by whatever name you

please to call it, it is a powerful instrument of production. If it be a fictitious system, its effects are not fictitious, for it leads to the feeding, the clothing, and the employing of a numerous population. * *

"Thus a banker, in three ways, increases the productive power of capital. 1st,—he economises the capital already in a state of employment. 2ndly—by the system of deposits he gives employment to capital that was previously unproductive. 3rdly—by the issue of his own notes he *VIRTUALLY CREATES CAPITAL by the substitution of CREDIT.*"

Thus Mr. Gilbert clearly asserts that Credit is productive capital.

96. In *BANKING IN AMERICA*, § 421, we have shown that Mr. Hamilton, the Secretary to the Treasury, in his report on banking, clearly showed that banking increases the productive capital of a country. And in the same article, § 443, Mr. Webster, the great lawyer and statesman, said in the senate,—"*Credit is the vital air of the system of modern commerce. It has done more, a thousand times, to enrich nations, than all the mines of all the world. * * Credit is to money what money is to articles of merchandize. * ** It is very true that commercial credit, and the system of banking as a part of it, does furnish a substitute for capital."

Therefore, Mr. Hamilton and Mr. Webster clearly assert that Credit is capital.

97. M. Gustave du Puynode says, (*De la Monnaie, du Crédit*, p. 110.)—"Sifécondes qu'aient été les Mines du Mexique et du Pérou, dans lesquelles devait longtemps encore après Colomb sembler enfouie la fortune de l'univers, il y a cependant une découverte plus précieuse pour l'humanité, et qui a déjà procuré plus de richesses que celles des Amériques : c'est la découverte du Crédit. Monde tout imaginaire, mais vaste comme l'espace, inépuisable comme les ressources de l'esprit."

This passage plainly asserts that Credit is productive capital.

Hence we fully conclude that

CREDIT IS PRODUCTIVE CAPITAL.

Such are the Elements of the Theory of Credit.

SECTION III.

ON THE MECHANISM OF THE SYSTEM OF CREDIT.

98. We have obtained, then, as the fundamental conception of the nature of Credit, that it is the *Present Right to a Future Payment*, which is property capable of being valued; and therefore wealth, as Aristotle said; moreover it is exchangeable, and is purchasing power, nay, the greatest purchasing power in modern commerce, and therefore wealth, as Mr. Mill says.

It will be found that this is the great idea upon which the whole system of Credit, in all its varieties, rests. It at once marks out its *nature* and its *limits*. And it will be found that all commercial catastrophes have arisen from transgressing these limits.

99. We shall now endeavour to explain to our readers the mechanism of the great system of Credit.

Credit is embodied in two ways: one in a form not adapted for general circulation, or else in

paper documents, which are more or less adapted for general circulation.

The former consists of the book debts of traders. In these the Credit moves once from the purchaser to the vendor, but being locked up in the books of the traders, never circulates further. The amount of Credit in this form in this country is incalculable, and there is no possible means of forming the most distant conception of its amount.

In the second form Credit is recorded in paper documents, which may circulate more or less generally. These paper documents are of two different forms;

ORDERS to pay, including Bills of Exchange, Cheques, Bankers' Drafts, Exchequer Bills, &c., &c.

PROMISES to pay, including Bank Notes, Promissory Notes, Deposits, &c.

Orders to pay are generally called *Bills*, and Promises to pay are generally called *Notes*. As the peculiarities of these different forms of Credit are fully explained under their respective heads, we shall not detain our readers by explaining them here, but shall assume them as known.

100. The system of Credit forms two great divisions. The first is *Commercial Credit*, in which traders of all sorts buy commodities by creating debts, payable at some time after date. The second is *Banking Credit*, in which bankers buy money and commercial debts, by creating debts, usually payable on demand.

101. Moreover, the system of Credit may, in another way, be conveniently divided into two parts. Credit, being exchangeable property, like money, may be used either to circulate existing products, or to call them into existence. That is, it may be based either on the simultaneous transfer of a commodity, or it may be created to produce one. It is by no means uncommonly supposed that the former is the only legitimate use of Credit, and that the latter is fraudulent. We shall see, however, that this doctrine is quite unfounded. But the fact is, that certain documents of the second form having been very grossly misused for fraudulent purposes, it has brought the whole system into groundless obloquy. We shall endeavour, in explaining the system of this second form, to point out in what the abuse of it, and the danger really consist.

On the System of Credit based upon Simultaneous Transfers of Commodities.

102. Goods or commodities, in the ordinary course of business, pass through the following hands:—1st, the foreign importer; 2ndly, the wholesale dealer; 3rdly, the retail dealer; 4thly, the customer or consumer. To the first three of these persons these goods are *capital*; because they import, manufacture, or buy them, for the sake of selling them with a profit; the fourth buys them for the sake of use or enjoyment. The price the ultimate consumer must pay for them, must evidently be sufficient to reimburse the original expense of production, together with the profits of the three succeeding operations.

103. Now, leaving out of the question at present, how the importer of the goods gains possession of them, which concerns the foreign trade of the country, which we do not touch upon here,—if he sells the goods to the wholesale dealer for ready money, he can, of course, immediately import, or produce, a further supply of goods in

the room of those he has disposed of. In a similar way the wholesale dealer sells to the retail dealer, and if he were paid in ready money, he might immediately effect further purchases from the merchant to supply the place of the goods he had sold. So also if the retail dealer were always paid in ready money by his customer, he might replace the part of his stock that was sold, and so if everybody had always ready money at command, the stream of circulation, or production, might go on uninterruptedly, as fast as consumption or demand might allow.

104. This, however, is not the case. Few, or no persons have always ready money at command for what they require. Very few traders can commence with enough ready money to pay for all their purchases; and if the stream of circulation, or production, were to stop until the customer had paid for the goods in money, it would be vastly diminished.

105. Now let us suppose that the merchant having confidence in the character of the wholesale dealer, agrees to sell the goods to him, but not to demand money for them till a certain period afterwards. He accordingly parts with the property of the goods to the wholesale dealer, exactly as if he had been paid in money, and receives in return the right to demand payment some time after date. Now the very same circulation of goods has taken place as would have been caused by money. The only difference is, that the actual payment is postponed, and for this the merchant charges a certain price. This debt may be recorded in two ways: it may either be simply recorded in the merchant's books, or else in a Bill of Exchange. But it is quite clear that the property is absolutely the same in whichever form it is, though one form may have more conveniences than the other.

In a similar manner, the wholesale dealer may sell for Credit to the retail dealer, and this debt may be recorded in two forms, like the first, either as a book-debt or in a Bill of Exchange. As in the former case the same circulation, or production, has been caused by Credit, as by money. Lastly, the retail dealer may sell to his customer on Credit, and this debt may also be recorded in two forms, either a book-debt or in a Bill of Exchange. In this latter case the debt is very seldom embodied in a Bill of Exchange, it most frequently rests as a book-debt. But in this case, as well as in the former ones, Credit has had precisely the same effect as money in circulating goods. Hence we see that Credit has had precisely the same effect as money in circulating the goods from the merchant to the consumer. Moreover, we see that the passage of the goods through these various hands has generated a debt at each transfer. Supposing the merchant sold the goods for a debt of £100 to the wholesale dealer, the wholesale dealer would probably sell them for a debt of £140 to the retail dealer, and the retail dealer would sell them to different customers for debts, not less probably in the whole than £200. Hence we see that the successive transfers of the same goods have generated debts to the amount of £440. Thereby exemplifying the distinction we have already pointed out between Credit and Bills of Lading, because, if the goods had passed through 20 hands, the same Bill of Lading would always have accompanied them.

106. Now the debt for which the merchant sold the goods to the wholesale dealer is no doubt valuable property to him, because he knows it will be paid in time. It may, moreover, be exchanged for anything else like any other property, if any one will take it. But it is of no immediate use for what the merchant or manufacturer probably wants at the time, namely, money to buy more goods, or to pay wages, &c. Moreover, though he may be quite satisfied as to the safety of the debt, from his knowledge of his customer, it does not follow that others who don't know him will. Consequently such a debt would not be well adapted for general circulation, and therefore it would be of no use towards further production. In a similar way, the debt for which the wholesale dealer sold the goods to the retail dealer, would not be well adapted for general circulation, and therefore could not conduce further to production. The debts due by customers to retail dealers, seldom do conduce to further production, because they are most frequently merely in the form of book-debts.

107. Now, the merchant would probably sell to a great number of wholesale dealers whose debts would fall due at different times, and therefore a certain stream of money would always be coming in, to enable him to continue production. Similarly, the wholesale dealer would sell to a great variety of retail dealers, whose debts would fall due at different periods, and so a certain stream of money would always be coming in to enable him to continue production. Similarly, the retail dealer sells to a great variety of customers, a great many of whom pay him ready money at the time of the purchase, as casual buyers, and his customers too, pay him money, by which he can continue to make purchases and keep up the stream of production. And therefore, this would greatly facilitate circulation or production.

108. And this we believe is the extent to which Credit in ancient times went. It did not go beyond book debts, at least as far as we have been able to discover. But all such statements must be made with the greatest reserve, because it is most unsafe to assert anything on merely negative evidence.

109. Credit, so far even as this, would be of great assistance to production, and the vast amount of it generated in this manner would be valuable property to its owners. But it is manifest that it would be of no further immediate use to them. It might therefore be aptly compared to so much dead stock. The next grand improvement would be to make this dead stock negotiable, or exchangeable. And in this, we believe, consists the great difference between modern and ancient Credit. The great modern discovery is to make the debts themselves saleable commodities. To sell them either for ready money, or for other debts of more convenient amount, and immediately exchangeable for money on demand, and therefore equivalent to money.

110. There are two classes of traders whose especial business is to buy these commercial debts, and so to give activity and circulation to this enormous mass of valuable property, and to convert it from dead stock into further productive power. The first class of these traders are called *BILL DISCOUNTERS*, i. e., *buyers of debts*; as we

have explained above, they buy these debts with money. The second class are called *BANKERS*; and they buy these commercial debts, by creating other debts payable on demand.

111. As according to the prejudices of trade, the business of bill discounting is considered inferior to that of banking, and as it is unquestionably a much less powerful instrument of commerce, our remarks will be confined to banking, and we shall explain how it converts that mighty mass of commercial debts from dead stock into productive capital.

112. We need not describe here how bankers receive money from their customers and give them in exchange for it Credit, or the right of transferring the debt payable on demand, for that is fully described under *BANK*. We have there also described how bankers changed the form of this Credit from a Promissory Note, given at the time of exchange, and capable of circulating in commerce just like money, into a Credit created in their books, called a *Deposit*, and to be drawn against by cheques, which are *Bills of Exchange* payable on demand. We have also shewn there the important consequences which flowed from this apparently unimportant change being the means, in fact, by which the monopoly of the Bank of England was broken in upon, and the London Joint Stock Banks founded.

113. Banks, then, as far as regards our present subject, are shops opened for the purpose of buying these commercial debts. The merchant draws a bill upon the wholesale dealer, who accepts it, and thus becomes the principal debtor on the bill. The merchant then takes the bill for sale, or discount, as it is technically termed, to his banker. It is usual to make bills payable to the drawer, or his order, which is signified by writing his name on the back of the bill. (*BILL OF EXCHANGE*). The merchant, therefore, writes his name on the back of the bill, and sells it to the banker, and this operation is termed *INDORSING* the bill. But the indorsement has another effect besides merely assigning over the debt to the banker, for unless specially guarded against, it makes him a surety for the payment of the bill, in case the acceptor does not pay it. The effect, therefore, of the indorsement, is a sale of the debt, and a warranty of its soundness. But this warranty is not an absolute one, but only a limited one; and the conditions are fully explained under *INDORSEMENT*. The banker, therefore, buys this debt with a limited warranty of soundness, by creating another credit, either as in former times by giving the merchant the amount, less the discount, which some banks are permitted to do now, or else by writing down a similar amount to the credit of his account, which Credit is called a *Deposit*, and giving the merchant power to draw upon him at pleasure and at demand. Thus we see that the banker has bought one debt, which is valuable property, by creating another debt, which is also valuable property, and is equivalent to ready money to the merchant. And we must particularly observe that this is not a cancelment of debts, as many suppose, but an *exchange* of valuable property.

114. The merchant has, however, a great many other similar debts, because he has sold to a great many wholesale dealers, and he will probably want to sell these in a similar way to his banker.

The merchant will, therefore, indorse each of them over to his banker, thereby making each of the acceptors the principal debtor to the banker, but at the same time becoming himself responsible if any of them fail to pay his debt. If, therefore, the banker discounts the bills of 20 acceptors, he will have 20 principal debtors, who are each of them bound, under the penalty of commercial ruin, to pay their debts when they are due. The merchant, however, is surety for each of them, and as it may happen that out of so many, some may make default, the banker usually stipulates that the merchant shall leave a certain amount of deposit on his account by way of additional security. If any acceptor then make default, the banker immediately debits the account of his customer with the amount, and gives him back the bill. Thus, to a certain extent, the banker always keeps the means of paying himself in his own hands, besides having his customer's name on the bill, which makes his whole estate liable, and even should his customer fail, he retains the right to have his debt paid out of the estates of both the principal and surety.

115. The wholesale dealer has given his acceptance for the goods, and he sells them to the retail dealer, and takes his acceptance for them. In a similar manner he wishes to sell this debt to his banker, and so convert it into productive capital. A similar transaction takes place as in the former case. The wholesale dealer sells the debt of the retail dealer, and becomes himself surety for its payment to his banker. The banker also buys this debt by creating another debt payable on demand, which is equivalent to ready money.

116. The retail dealer may also draw upon his customers, though this is comparatively rare, because customers are generally beyond the pale of commercial law.

117. By these means we see that the dead stock of commercial debts are converted into productive capital. The merchant and the wholesale dealer, have now the full command of ready money for any purposes they require, and can continue the stream of production without interruption, and as their bills fall due, all they have to do is to give an order on their banker.

118. These are the fewest number of hands that goods in the ordinary course of business pass through, and it is clear that in their passage from the manufacturer to the customer, they will give rise to at least two bills, and sometimes three. They are all regular business bills, they originate from real transactions, and they are what are called real, or value bills, and they are what arise out of the regular and legitimate course of business and are the great staple of what bankers purchase. It is a very prevalent belief among commercial men that business bills are essentially safe, because they are based upon real transactions, and always represent property. But the foregoing considerations will dispel at once a considerable amount of the security supposed to reside in commercial bills on that account, because we have seen that in the most legitimate course of business, there will generally be two bills afloat, originating out of the transfers of any given amount of property, so that in the ordinary way there will be at least twice as many bills afloat as there is property to which they refer.

119. We must refer to the article *BANK*, for an

exposition of the mechanism of banking, shewing how the creation and exchange of debts is made in modern commerce to perform the part of money. We will only observe here that the manufacturer, the wholesale dealer, and the retail dealer may all be customers of the same bank, and if they all have their bills discounted by it, it will purchase a whole series of debts arising out of the transfers of the same property.

120. The above operations are only what arise in the ordinary course of business; it may sometimes happen that property may change hands much more frequently, and at every transfer, a bill may be created. Hence, when the credits are very long, and the transfers numerous, it is easy to imagine any number of bills being created by repeated transfers of the same property. In times of speculation, this is particularly the case. Now all these bills are technically commercial, or real, bills, but it is evidently a delusion to suppose there is any security in them on that account. The fact is, that the whole misconception arises from an error in the meaning of the word "represent." A bill of lading does, as we have said above, *represent* property, and whoever has the bill of lading, actually has so much property. But a Bill of Exchange does not *represent* goods at all. It represents nothing but *debt*, not even any specific money. It is created as a substitute for money, to transfer property, but it does not represent it any more than money represents it. This was long ago pointed out by Mr. Thornton in his work quoted above, (p. 30) "In order to justify the supposition that a real bill, as it is called, represents actual property, there ought to be some power in the billholder to prevent the property which the bill represents, from being turned to other purposes than that of paying the bill in question. No such power exists; neither the man who holds the bill, nor the man who discounted it, has any property in the specific goods for which it was given." This is perfectly manifest. It is both contrary to the law and the nature of Bills, that they should be tied down to any specific goods. And it shews that the real security of the bill consists in the general ability of the parties to it to meet their engagements, and not in any specific goods it is supposed to represent, the value of which is vague or illusory, and impossible to be ascertained by any one who holds or discounts it.

121. The distinction between Bills of Lading and Bills of Exchange is of so subtle a nature, but is of such momentous consequence, that we may illustrate it still further. The preceding sections shew that any given amount of property may by repeated transfers give rise to any amount of bills, which are all *bonâ fide*, just for the same reason that every transfer would require a quantity of money equal to the property itself to transfer it. Then, even supposing the price remained the same at each transfer, it would require twenty times £20 to circulate property of the value of £20 twenty times. But also £20 by twenty transfers may circulate property to the value of twenty times £20. So also a Bill of Exchange may represent the transfers of many times the amount of property expressed on the face of it. This is the case whenever the bill is indorsed, or passed away for value; and the bill represents as many additional values expressed on the

face of it as there are indorsements. Thus, let us suppose a real transaction between A and B. A draws upon B. That shews the bill has effected *one* transfer of property. A then buys something from C. It is clear that C might draw upon A, in a similar way that A drew upon B. But instead of that, A may transfer the Bill on B, by indorsement. It has now effected *two* transfers of property. In a similar way, C may buy from D, and in payment of the property may indorse over the bill to D. The bill then represents *three* transfers of property. In a similar way it may pass through an unlimited number of hands, and will denote as many transfers of property. When C indorsed over the bill to D, he merely sold to him the debt which A had previously sold to him. Now that might be done, either by drawing a fresh bill on B, cancelling the first, or simply indorsing over the bill he received from A. Hence we see that every indorsement is equivalent to a fresh drawing. But if he draws a fresh bill on B, it will represent nothing but B's debt to him, whereas, if he indorses over the bill he received, it will represent B's debt to A, A's debt to C, and C's debt to D, and, consequently, it will be much more desirable for D to receive a bill which represents the sum of so many previous transactions, and for the payment of which so many parties are bound to the whole extent of their estates. Some thirty years ago, almost the entire circulating medium of Lancashire consisted of Bills of Exchange, and they sometimes had as many as 150 indorsements upon them before they came to maturity. From this also we see that no true estimate can be formed of the effect of the bills of exchange in circulation, by the returns from the Stamp Office, as has sometimes been attempted to be done, as every fresh indorsement is in effect a new bill. So that the useful effect of a bill of exchange is indicated by the number of indorsements upon it, supposing that every transfer is accompanied by an indorsement, which is not always the case. We see here the fundamental difference between Bills of Lading and Bills of Exchange, because the indorsements on the former denote the number of transfers of the same property; the indorsements on the latter denote the number of transfers of *different* property. Ten indorsements on a Bill of Lading shew that the same property has been transferred ten times, but ten indorsements on a Bill of Exchange shew that ten times the amount of property has been transferred once.

122. We have shewn that the prices of all commodities are universally governed by the Law of Supply and Demand at all times (CONTINUITY, LAW OF; PRICES, THEORY OF). If the supply be excessive, nothing can prevent the price from falling to any state of depression, until it becomes absolutely unsaleable. The commodity, therefore, will not pay the cost of its production, and unless those concerned in producing it have independent capital to enable them to hold on until the excessive supply is taken off, and save them from selling when the price is ruinously depressed, or to stand the losses, they will all fail.

123. Almost all men in commerce are under obligations; that is, they accept Bills of Exchange which must be paid at a fixed time, under the penalty of commercial ruin. To meet these obligations due by them, they have property of

two sorts—debts, or obligations due to them; and secondly, commodities. To meet their own obligations, they must sell one or other of these kinds of property. They must either sell their debts to their bankers, or they must sell their commodities in the market. While credit is good—that is, while bankers buy debts freely, they can retain their commodities from the market, and watch their own opportunity of selling at a favourable moment. As their own obligations fall due, they sell to their bankers some of the debts due to them. Thus, if credit were always good, they might go on for ever without the necessity of ever having a single piece of money paid into their account, or having any money at all beyond what is necessary for their petty daily transactions. But if credit receives a check, and the banker refuses to buy their debts, they must still meet their own obligations, under penalty of ruin. They are consequently obliged to throw their commodities on the market, and sell them at all hazards, the supply of them becomes excessive, and inevitably depresses the price. Traders who have capital enough of their own to meet their engagements without discounting, are able to keep their commodities back from the market, until, the extra supply being exhausted, prices rise again, from the natural operation of the demand. Bankers, we have shewn, always buy the debts of traders by creating debts of their own, which are called their “issues,” and when bankers refuse to buy the debts of traders, they are said to “contract their issues.” Consequently, a contraction of issues, or of discounts, is generally followed by a fall in prices. And this fall in prices happening coincidentally with a contraction of issues, is frequently supposed to be caused directly by the diminished amount of currency compared to commodities, which is to a great extent erroneous, because it is in reality caused by the extra quantity of commodities, which a refusal to discount debts, causes to be thrown upon the market.

124. We see, then, how utterly impossible it is to ascertain the precise effect of the contraction of issues of banks upon prices, because the change is principally produced by the quantity of produce which traders are compelled to sell to meet their engagements, when the negotiability of their debts receives a check, and of course similar circumstances not only compel traders to sell, but prevent others from buying. Consequently, the supply is greatly increased, and the demand greatly diminished. If, however, the holders of one commodity are possessed of much independent capital, and are not compelled to realize to meet their engagements, a contraction of issues would not affect them much. On the other hand, if the holders of another commodity were in general men who depended chiefly on credit, and were compelled to sell at a sacrifice to meet their engagements, a sudden refusal to discount for them would cause an extraordinary quantity of their produce to be thrown upon the market, and cause a ruinous depression of price.

125. It is the sudden failure of confidence and extinction of credit, which produces what is called in commercial language a “pressure on the money market,” and which causes money to be “tight.” When money is said to be scarce, it does not mean that there is a smaller quantity of money

actually in existence than before; there may be more, or there may be less in the country, no one can tell what the amount of money in existence is; but a great amount of credit, which serves as a substitute, and was an equivalent for money, is either destroyed altogether, or is suddenly struck with paralysis as it were, and deprived of its negotiable power, and, therefore practically useless. A vast amount of property is expelled from circulation, and money is suddenly called on to fill the void. When a new field of commercial adventure is found by sagacious discoverers, or a new market is suddenly thrown open by a change in the commercial policy of foreign nations, the first adventurers usually reap enormous profits. As soon as this becomes known, a multitude of other speculators rush into the same field, excited by the profits reaped by the first. Numbers of merchants and traders purchase commodities on credit, that is, they incur obligations which they must discharge at a future day, in the hopes that the returns will come in before the day of payment. But the immense quantity of goods poured in usually glut the market in a short time, and from the excess of supply, prices tumble down often to nothing, so that the goods become unsaleable, and either no returns at all come in, or such as are quite inadequate to meet the outlay. When this occurs, it is called *overtrading*, and when this has been extensively practised, it is necessarily and inevitably followed by a great destruction of credit, and a great demand for cash. Thus, credit is destroyed faster than operations can be reduced in proportion. Those traders who have not received the returns they counted upon to meet their engagements, must raise money on any terms, and perhaps sell what property they have, at any sacrifice, to save themselves from ruin. The effect of this will be that money, for which there is an intense demand, will rise greatly in value, that is, discount will rise very high. But as a necessary concomitant of such a state of things, a great quantity of goods will be thrown upon the market, and their price will be enormously depressed. These circumstances will, therefore, produce a very high rate of discount, and ruinously low prices, which must continue until the excessive supply of goods is exhausted, and confidence revived. In such cases as these, traders who have not sufficient capital of their own to meet their engagements, and hold on their goods until prices rise, will infallibly be ruined. Under such circumstances, the rate of discount bears no relation whatever to the rate of profit. The use of ready money to persons who have overtraded, is of infinitely more consequence than the price they have to pay for it. It may be well worth their while to pay 15, or 20, or even 50 per cent. for the use of money for a temporary emergency, which may save them from ruin, and enable them to maintain their position.

126. It is, therefore, not the scarcity of money, but the extinction of confidence, which produces a pressure on the money market: and an examination of all the great commercial crises in this country, will shew that they have always been preceded and produced by a destruction of this credit, which has usually been brought about by extravagant overtrading and wild speculation, as may be seen under *CRISIS*, COMMERCIAL.

127. The principle that the relation between supply and demand is the sole regulator of value, combined with the action of the credit system, will explain all the phenomena witnessed during a pressure on the money market. The failure of credit in any one branch of business will produce its full effect on the general market rate of interest, because that is regulated by the intensity of the demand for money from whatever quarter it comes. But it will not necessarily follow that the market prices of all commodities will be depressed. The market price for each commodity will be governed entirely by its own peculiar circumstances. If the holders of one commodity have independent capital, and have prudently abstained from overtrading, the price of such a commodity will not suffer much, because the ratio of supply and demand will not be altered to any great extent, but it cannot help sympathising to a certain extent with other commodities. But if the holders of another species of commodity have overtraded, and depended too much on credit, without sufficient means, they will necessarily be obliged to throw a great quantity of their produce on the market to realize, and this excessive supply will depress the price. And this effect will be increased, because such are the very times when persons who have ready money are particularly cautious in buying, partly because they always hope the market will fall still lower, and they hope to buy cheaper when prices have fallen to a minimum, and they will certainly not buy more of any commodity than they can help, which is diminishing in value; and partly because they must keep their ready money to maintain their own position. From these causes, not only is the supply increased, but the demand is diminished, so that the fall is doubly aggravated. Thus, we see at once, that a falling market will always be well supplied, because people who must sell, hasten to do so before the price falls still lower, and buyers hold aloof, waiting as long as they can, to see the lowest. On the other hand, when markets are rising, the case is reversed. The sellers hold aloof, hoping the price will be still higher, and buyers crowd in, hastening to purchase before the price rises more. A market that is desponding and inactive will usually continue so until people are persuaded that things are at the lowest, and are at the turn. It is evident that these considerations and observations apply to home produce, or at least to produce which is already in this country, and which can be thrown on the market immediately. In order to attract foreign produce, the market must rise high for a considerable time, with the appearance of continuing so.

128. Considering that any bill whatever which is drawn against *bonâ fide* produce is in commerce technically a real bill, it will be seen at once that their supposed security is greatly exaggerated, because any operation, however foolish and absurd, is a good basis for a real bill. In times of rapid changes in price, multitudes of bills will be generated by speculative purchasers, and when the price falls as rapidly as it rose, as it usually does, it is simply *occupat extremum scabies*. Hence, losses, and very severe ones, too, are sure to happen in such times. But there is always at least this certainty with real bills.

When persons have speculated unluckily and lost their fortunes, they are brought to a standstill. When a man has ruined himself by speculation, no banker out of Bedlam would advance him more money to speculate with. Hence, ill-judged speculation must stop a man's mischievous career in a comparatively short space of time, that is, whenever he has lost the value of the goods he has been speculating with. We shall find in the next section, unfortunately, that traders have devised a method to extract funds from bankers to speculate with, by which they can go on long after they have lost all they ever had, many times over, and adding loss to loss, until, perhaps, they may bring down their bankers, whom they duped and defrauded, as well as themselves. We have shewn in the next section, that there are symptoms which will often indicate a commercial crisis.

On the Theory of Cash Credits, Open Credits, and Accommodation Bills.

129. The operations on Credit, which we have hitherto been considering, were all based on an anterior operation, or one in which an exchange of commodities was affected by the creation and sale of the Credit, which Credit was afterwards sold or exchanged for another Credit. Such Credit is, therefore, manifestly limited by operations which have been made, and by commercial exchanges. The number of Bills created could by no possibility exceed the number of transfers of commodities, although they might be greatly less, because, as we have seen, a single bill might be used to effect many transfers of property. In all these cases, a debt has been created, which was expected to be paid out of the proceeds of the sale of existing property.

130. But since Credit is, as we have shewn, exchangeable property, and a substitute for money, it is clear that it may be applied as well as money to bring new products into existence. The limits of it in this case will be exactly the same as those in the former case, namely, the power of the proceeds of the work to redeem the Credit.

131. As an example of such a creation or formation of a product, we may take such a case as the following. Suppose the corporation of a town wishes to build a market hall, but has not the ready cash to buy the materials, and pay the builder's and workmen's wages. It may be a matter of certainty, that if the market were once built, the stalls in it would be taken up immediately, and the rents received from them would liquidate the debt incurred in erecting it. But, as the workmen cannot wait until that period, but require immediate cash to purchase necessities, it is clear that unless there is some method of providing ready payment, they cannot be employed. In such a case, they might borrow money upon their own bonds, repayable at a future period. Now here we observe that these bonds are the creation of property. They are the right to demand a future payment, and are valuable exchangeable property, which may be bought and sold like anything else. In this case, we observe there is an exchange. But the Corporation need not borrow money. They might make their own obligations payable at a future date. And if these were made small enough, and were readily received by the dealers in the town,

they might be used in the payment of the workmen's wages, and perform all the functions of a currency, and be equivalent to money. Each of them is a new right created, and valuable property, which is exchangeable, and, therefore, wealth, by the definition. They would be quite as efficacious in *producing* or forming the market hall as real capital. And the market hall itself would be capital, because it produces a profit. As the stalls were let and rent received for them, the bonds might be reduced, and the debt cleared off. It is said that many market places have been built by adopting such a plan. This case shews the utter futility of the notion that credit cannot be applied to the formation of products, and here we see it was not based on any anterior operation.

132. But as a more remarkable example of the powers of credit, we will take the Cash Credit system of Scotland.

We have explained under CASH CREDIT, the origin of this species of Credit, which we need not repeat here.

Now let us suppose that a rich proprietor should buy an unimproved part of the country, but one capable of being improved, with a considerable amount of idle persons upon it, who did nothing all the year round beyond the small amount of labour necessary to obtain some miserable food. This proprietor seeing the capabilities of the country, takes with him 1,000 sovereigns, and employs them in bringing the land into cultivation, in paying wages, and setting people to work. By these means the country is, in a few years, converted from a barren moor into fields of corn. Would not every one say that these 1000 sovereigns have been employed as *Productive Capital*? Of course every one would say so.

133. Now let us suppose that the circumstances and capabilities of the country are precisely the same, but the proprietor has no money. Suppose now a great Edinburgh bank seeing this state of matters, and the great undeveloped resources of the district, opens a branch in it, and sends down a boxful of £1 notes.

It is quite evident that as long as these notes remain in the coffers of the bank, they are nothing at all. They are only so many bits of paper, which convey no rights to any one. But as soon as the bank consents to issue them the case is totally changed. For whoever receives them from the bank, receives the right to demand one pound in gold from the bank, and it is very manifest that this is valuable property. Here, therefore, is a new property created of which the notes are the evidence. For it may not be superfluous to observe that it is not the notes, exactly, which are the property, but the engagement of the bank to pay the sum on demand, of which the evidence is recorded on the note, and by means of which it is transferred.

134. Now as we define the value of a thing to be the thing for which it will exchange, it is quite evident that these notes are valuable things, in fact, are of the value of money, because they can be exchanged for money on demand. And this valuable property may be transferred from hand to hand, like any material substance whatever. It is in all respects as transferable as money itself, and, therefore, by the very force of the

definition of wealth, which is anything which has purchasing power, or is exchangeable, it is wealth. And it is notorious that the quantity of paper currency in a country is always reckoned cumulatively to the gold and silver money. And we have shewn below that every Economist does so.

135. Of course we need scarcely observe that as wealth depends upon the single idea of exchangeability, such things are only wealth within the area in which they can be exchanged. Such a bank note, therefore, is only wealth within the limits of Scotland, within which it has purchasing power. Our readers will therefore perceive clearly the manifest truth, that the creation and issue of Bank Notes is the creation and issue of distinct articles of property.

136. The bank, therefore, perceiving the capabilities of the country, and having confidence in the skill, industry, and honesty of the farmers, or proprietors—which in fact may all be summed up in the word character—and upon receiving collateral security against loss if necessary, creates and issues these notes—valuable property—as loans to the farmers. These notes are employed exactly in the same way that money would have been. The people are set to work, the land is reclaimed and stocked, and in a few years what was a bleak and barren moor, is changed into fertile fields of waving corn.

Now, we ask, who in their senses can deny that these notes have been *productive capital*, exactly as much as money would have been?

137. Now when the time for repayment comes, it may be made in three ways. We may suppose that more than one bank has established branches in the district. When the farmer therefore has sold his produce in the market, he may receive for it, either money, or the notes of another bank, or notes of the bank which has made him the loan, or any combination of these. He may therefore pay the bank in money, or in the notes of another bank, or in its own notes. Now we have observed that money is positive property, so the notes, or the debt of a bank, are positive property to the holders of them, though negative to the bank itself. By paying the bank therefore in money or in the notes of another bank, that is transferring to them positive property. But paying the bank in its own notes is the release of a debt, or the taking away of negative property.

We observe, therefore, that in commerce, the *Payment of Money* and the *Release of a Debt*, are in all cases absolutely equivalent. Which is a practical commercial example of the Algebraical doctrine that $+$ \times $+$ is in all cases absolutely equivalent to $- \times -$.

138. The banks, it is to be observed, always limit their advance to a certain moderate amount, varying from £100 to £1,000 in general, and they always take several sureties in each case, never less than two, and frequently many more, to cover any possible losses that might arise. These cautioners, as they are termed in Scotch law, keep a watchful eye on the proceedings of the customer, and have always the right of inspecting his accounts with the bank, and have the right of stopping it at any time, if irregular. Moreover, the banks themselves do not permit these credits to degenerate into dead loans. We must also observe that, though security is taken,

no part of the cautioner's property is taken out of circulation; and therefore his liability is only contingent.

139. The enormous amount of transactions carried on by this kind of accounts may be judged of when it appears from the evidence of the witnesses before the Committee of the House of Commons in 1826, that on a Cash Credit of £1,000, operations to the amount of £50,000 took place in a single week. Its effects therefore were exactly the same as these of £50,000 sovereigns. Others stated, that on a cash credit of £500, operations to the amount of £70,000 took place in a year. One witness stated that during twenty-one years, in a moderately sized country bank, operations had taken place to the amount of nearly £90,000,000, and that there never had been but one loss of £200, on one account, and that the whole loss of the bank during that period did not exceed £1,200.

140. These credits are granted to all classes of society, to the poor as freely as to the rich. Young men in the humblest walks of life begin by making a trifle for themselves. This inspires their friends with confidence in their steadiness and judgment, and they become sureties for them on a Cash Credit.

This is in all respects of equal value to them as money, and thus they have the means placed within their reach of rising to any extent that their abilities and industry permit them. Mr. Monteith, M.P., told the committee that he was a manufacturer, employing at that time 4,000 hands, and that except with the merest trifle of capital, lent to him, and which he very soon paid off, he began the world with nothing but a Cash Credit! And this was only one example out of thousands.

141. This shewed the advantage in a personal way. But even that was but a small part of the system. Almost all the great public works of every description were created by means of Cash Credits. One witness stated that the Forth and Clyde Canal was executed by means of a Cash Credit of £40,000, granted by the Royal Bank. And in a similar way, whenever any other public works, such as roads, bridges, &c., were to be done, the first thing was to obtain a large Cash Credit at one of the banks. And it is by these means that Scotland has been raised to the proud position she now enjoys. It is no exaggeration whatever, but a melancholy truth, that at the period of 1688, and the establishment of the Bank of Scotland, that country, partly owing to such a succession of disasters as cannot be paralleled in the history of any other independent nation, and partly owing to its position in the very outskirts of the civilized world, and far removed from the humanizing influence of commerce, divided in fact into two nations, aliens in blood and language, was the most utterly barbarous, savage, and lawless kingdom in Europe. And it is equally undeniable that the two great causes of her rapid rise in civilization and wealth, were her systems of national education and banking. Her system of banking has been infinitely of greater service to her than mines of gold and silver. Mines of gold and silver would probably have demoralised the people. But her banking system has tended immensely to call forth every manly virtue; and the express business of these banks was to create

out of nothing, but by the mere force of their will, incorporeal entities, which were valuable and exchangeable property, and, therefore, by the very force of the definition, wealth; which having served their purpose, after a time were

"Melted into air, into thin air."

But their solid results have by no means faded like the baseless fabric of a vision, leaving not a rack behind. On the contrary, their solid results have been her far-famed agriculture, the manufactures of Glasgow and Paisley, the unrivalled steamships of the Clyde, great public works of all sorts, canals, roads, bridges, and poor young men developed into into princely merchants.

142. All these marvellous results which have raised Scotland from the lowest state of barbarism up to her present proud position in the space of 150 years, are the children of pure CREDIT. It has been nothing whatever but some incorporeal entities called out of NOTHING, for a transitory existence, and then vanishing again into the NOTHING from which they came. And has not this *credit* been capital? Will any one with these results staring the world in the face, believe that it is maintained by many writers who still are considered as economists, that *Credit conduces nothing to the increase of Wealth!* That Credit conduces nothing to production!! That Credit only transfers existing Capital!! And that those who maintain that Credit is productive Capital are such puzzle-headed dolts as to maintain that the same thing can be in two places at once!!! How we have dealt with these writers, may be seen in the next section.

143. Now, we observe, that these Cash Credits, which have produced such marvellous results, are purely of the nature of what is called *accommodation paper* in England. They are not based upon any previous operations, nor upon the transfer of commodities already in existence. They are created for the express purpose of *creating*, or *forming future* products, which would either have had no existence at all but for them, or at all events it would have been deferred for a very long period, until solid money could have been obtained to produce them. Thus we have an enormous mass of exchangeable property, created by the mere will of the bank and its customers, which produces all the solid effects of gold and silver, and when it has done its work, it vanishes again into nothing, at the will of the same persons, who called it into existence. Hence we see that the mere will of man has *created* vast masses of wealth out of *nothing* and then *DECREATED* them into NOTHING.

144. Here we see one example out of many of the enormous advantages of character. If the applicants were not of good character, the banks would never have granted them these credits. They would never have created this property for them. If the banks themselves were not of great solidity and character, these incorporeal entities would never have obtained the general confidence of the people so as to pass unquestioned throughout the whole country, as equivalent to gold and silver. It is nothing but the breath of confidence which gives them this magic power, which vanishes into nothing at the blight of distrust.

145. The real difficulty which impedes a true comprehension of the subject, is very similar to

that which long obstructed the progress and reception of the Newtonian doctrine of gravity. It had been handed down as a dogma from the days of the Greek philosophers, that a body could not act where it was not. Instead of reflecting on the facts with unbiased minds, the opponents of the Newtonian doctrines contended that his doctrines violated the fundamental dogma that a body could not act where it was not, and treated them with ridicule.

146. A very much more specious dogma is, however, at the root of the common inability among uninstructed writers to grasp the true conception of Credit. From the days of Anaxagoras and Epicurus, it has been handed down from age to age, by succeeding generations of physicists *That Nothing can come out of Nothing, and That Nothing can go back into Nothing.* The fundamental dogma of Lucretius, the hierophant of the Atomic Philosophy is that Nothing can come out of Nothing. i. 151, &c.

NULLAM REM E NIHILO GIGNI DIVINITUS UNQUAM.

NIL igitur fieri de NILO posse fatendum 'st.

Moreover, that Nothing can go back into Nothing. i. 216; &c.

Huc accedit, uti quæque in sua Corpora rursum Dissolvat Natura, neque ad Nihilum interimat res.

Nullius exitum patitur Natura videri.

Immortali sunt naturæ prædita certe;
Haud igitur possunt ad Nilum quæque reverti.

Haud igitur redit ad Nihilum res ulla, sed omnes
Discidio redeunt in corpora materialia.

Haud igitur penitus pereunt quæcumque videntur;
Quando alia ex alio reficit Natura nec ullam
Rem gigni patitur, nisi morte adjutam alienâ.

And this is the constant refrain of the Lucretian philosophy, That nothing can be produced from nothing, and that nothing can go back into nothing, i. 266.

Nunc age, res quoniam docui non posse creari
De Nihilo, neque item genitas ad Nil revocari.

At quoniam supra docui NIL posse creari
De Nihilo, neque quod genitu 'st ad Nil revocari,
Esse immortali Primordia corpore debent."

And this is the identical doctrine which physicists maintain to the present day. Chemists delight to expatiate to their audience on the indestructibility of all things. How seeming destruction is merely the dissolution of atoms under their present combinations, to reappear in new forms and new combinations in perpetual succession.

147. But Political Economy confounds the best settled doctrines of the sages of old. It is true that many Economists have declared that man can call nothing into existence, that all wealth comes from the earth. That wealth is but the particles of matter, and that all that man can do is to re-arrange them, and either place them in a new position, and let nature do the rest. But their own doctrines, their own books, their own definitions, confound all such notions. And lawyers know better than that. Economists, with scarcely an exception, are agreed that whatever can be exchanged, whatever can be bought and sold, is wealth; that everything by which profit can be made is Capital. Twenty-two centuries ago Socrates expressly declared that know-

LEDGE WAS WEALTH. Aristotle laid down as a definition that *everything* whose value could be measured in money was WEALTH. Adam Smith expressly enumerates the "acquired and useful abilities" of the people as part of the Wealth of a country. He also classes paper money—which is credit—as valuable property, and therefore Wealth, making exchangeability the test of Wealth. J. B. Say has done the same. So does Mr. Senior. He says—"Health, strength, and KNOWLEDGE, and the other natural and acquired powers of body and MIND, appear to us to be articles of WEALTH. * * * In the greater

part of the world a man is as purchasable as a horse. In such countries the only difference in value between a slave and a brute consists in the degree in which they respectively possess the saleable qualities that we have been considering. *If the question whether personal qualities are articles of wealth had been proposed in classical times, it would have appeared too clear for discussion.*

[We have shown under *ÆSCHINES* *SOCRATICUS* that this very question was proposed in classical times, and personal qualities were decided to be WEALTH.] In Athens every one would have replied that they in fact constituted the whole value of an *ἐμψυχον ὄργανον*. The only differences in this respect between a freeman and a slave are, first, that the free man sells *himself*, and only for a period, and to a certain extent, the slave may be sold by others and absolutely; and, secondly, that the personal qualities of the slave are a portion of the wealth of his master; those of the freeman, so far as they can be made subjects of exchange, are a part of his own wealth. They perish, indeed, by his death, and may be impaired, or destroyed by disease, or rendered valueless by any changes in the customs of the country, which shall destroy the demand for his services; *but subject to these contingencies, they are wealth, and wealth of the most valuable kind.* The amount of revenue derived from their exercise in England far exceeds the rental of all the lands in Great Britain."

148. Again, at p. 145, Mr. Senior says—"Even in our present state of civilization, which, high as it appears by comparison, is far short of what might easily be conceived, or even of what may confidently be expected, the INTELLECTUAL and MORAL CAPITAL of Great Britain far exceeds all her MATERIAL CAPITAL, not only in importance, but even in productiveness. The families that receive mere wages probably do not form a fourth of the community; and the comparatively large amount of the wages even of these, is principally owing to the capital and skill with which their efforts are assisted and directed by the more educated members of the society. Those who receive mere rent, even using that word in its largest sense, are still fewer; and the amount of rent, like that of wages, principally depends on the knowledge by which the gifts of nature are directed and employed. The bulk of the national revenue is profit, and of that profit, the portion which is mere interest on material capital probably does not amount to one third. The rest is the result of PERSONAL CAPITAL, or in other words of education.

"It is not in the accidents of soil, or climate, or on the existing accumulation of the material

instruments of production, but on the quantity and the diffusion of this IMMATERIAL CAPITAL, that the WEALTH of a country depends. The climate, the soil, and the situation of Ireland have been described as superior, and certainly are not much inferior, to our own. Her poverty has been attributed to the want of *material capital*; but were Ireland now to exchange her native population for seven millions of our English North Countrymen, they would quickly create the Capital that is wanted. And were England, north of Trent, to be peopled exclusively by a million of families from the west of Ireland, Lancashire and Yorkshire would still more rapidly resemble Connaught. Ireland is physically poor, because she is morally and intellectually poor. And while she continues uneducated, while the ignorance and violence of her population render persons and property insecure, and prevent the accumulation and prohibit the introduction of capital, legislative measures, intended solely and directly to relieve her poverty, may not indeed be ineffectual, for they may aggravate the disease, the symptoms of which they were meant to palliate, but undoubtedly will be productive of no permanent benefit. KNOWLEDGE has been called power—it is far more certainly WEALTH. Asia Minor, Syria, Egypt, and the Northern Coast of Africa, were once among the richest, and are now among the most miserable countries in the world, simply because they have fallen into the hands of a people without a sufficiency of the immaterial sources of wealth to keep up the material ones."

149. Knowledge, therefore, by the very generality of the definition, and the consent of nearly every Economist of note—is Wealth. And where does Knowledge come from? And what is it formed out of? Does it come from the earth? and is it formed out of the materials of the globe? We should fancy that few would maintain that. All that we know is that Knowledge originates in the mind. Knowledge is formed in the mind, but is it formed *out of* the materials of the mind? And if so, what is the composition of the mind? Does it come from the earth? Are we to have an Atomic theory of Knowledge, or of the Mind? Will some metaphysical Dalton tell us that knowledge, or the human mind, is composed of indestructible primordial Atoms?

Πολλά τὰ δεινὰ, κούδὲν ἀν-
θρώπου δεινότερον πύλει

But this same knowledge—Whence cometh it? What is it?—Whither goeth it?

We know not—Do our readers?

Nathless it is WEALTH; and therefore it is within the domain of the Economist. It may be bought and sold; it may be valued; it may be accumulated; it may be handed down from age to age, like any material product whatever. The acquisition of knowledge is the acquisition of Wealth; and the loss of knowledge is the destruction of Wealth. And is the loss or destruction of knowledge the dissolution of indestructible primordial atoms? Here, then, are vast masses of Wealth, and the question is where it comes from, and what is it composed of? And there are but two solutions of the question. Either knowledge is composed of indestructible atoms, or it is not.

If it be so, then of course the formation of knowledge is not the Creation of Wealth out of Nothing. But unless we are prepared to admit that—and who is?—the formation of knowledge must be creation of Wealth out of Nothing. And the loss or destruction of Knowledge must be the Decreation, or the return, of Wealth into Nothing!

150. As one example of this out of thousands, we may take a case that was not very long ago before the Scotch Courts. In the beginning of the 17th century, a man named Anderson discovered a way of making pills, which soon became very popular. The secret of making these pills has been handed down from generation to generation, and has been a constant source of Wealth to the owner of it. Very recently, the possessor of it became bankrupt, and his creditors claimed the right of having it given up to them, as part of the bankrupt's property. The pills have been analysed in vain by chemists, and the secret of their composition has never been able to be discovered. Now, here is a manifest case of a trade secret, knowledge, being Wealth,—and where did this Wealth come from? and what is it composed of? Did it come from the earth? and is it composed of the materials of the globe? And yet it has been handed down as an heirloom from age to age. Suppose the present possessor of the secret dies without divulging it, there is a manifest loss of Wealth. And what would become of it in such a case? And this is clearly only a particular example out of countless others.

151. Here, therefore, we have enormous masses of what every Economist, with scarcely an exception, admits to be wealth, which shakes the doctrines of the Physical Philosophers. But also, the doctrines of many Economists are equally overthrown, because they say that all wealth comes from the earth. But here we have great masses of wealth which do not come from the earth. Hence it is manifest that there is another source of wealth besides the Earth, namely, the HUMAN MIND.

152. But even this does not exhaust the list of Economic Quantities, though Economists have scarcely noticed any other. When we adopt the definition of Wealth as everything that can be exchanged, or whose value may be measured; we very soon find that there is yet another species of exchangeable quantities, which do not originate in the earth, nor yet in the mind. And here again we may observe that Lucretius is at fault. For he says that there is nothing, besides the void, which is separated from something corporeal.

*Omnia, ut est, igitur, per se, Natura, duabus
Consistit rebus; nam CORPORA sunt, et INANE.*

*Præterea nihil est, quod possis dicere ab omni
Corpore sejunctum, secretumque esse ab INANI.*

Et facere et fungi sine CORPORE nulla potest res.

*Ergo præter INANE et CORPORA, tertia per se
Nulla potest rerum in numero natura relinqui.*

From these lines it is clear that Lucretius did not live in the days of Public Debts, Bills of Exchange and Bank Notes, Bank Shares, Copyrights and other incorporeal property, or he would have modified this part of his Philosophy.

153. Modern ingenuity has reduced what

Lucretius declared an impossibility into reality. There are enormous masses of exchangeable incorporeal property, for which there are express shops for creating, and there are special markets for trafficking in, namely, the Royal Exchange, and the Stock Exchange.

154. Mr. Mill, we have seen, defines Wealth to be anything which has power of purchasing, and he says that productive labour is labour which is productive of wealth. Hence manifestly labour which produces anything which is exchangeable is producing Wealth. In Book iii., ch. xii., § 5, he gives a table showing that the Bills created in a single year amounted to £528,493,842, and these, after all, were but a fractional part of the total quantity of credit. In B. iii., c. xx., § 2, he expressly calls Bank Notes "Productive Capital," and Smith enumerates paper credit cumulatively to gold and silver money.

155. Now we observe that every one allows Bank Notes, Bills of Exchange, &c., to be separate independent exchangeable property, and therefore *ex vi termini*—Wealth. And what are they? Simply Credit—DEBTS. Now where do these Debts come from? Do they come from the materials of the globe? Are they, too, formed of indestructible primordial atoms? When a debt is extinguished is it a mere dissolution of certain material particles to reappear under another form? Are they even the products of Labour and the human mind?

How is a Debt created? By the mutual consent of two minds. By the mere FIAT of the HUMAN WILL. And how is a debt extinguished? By the mere FIAT of the HUMAN WILL. Now we again ask—we need scarcely repeat that a debt is property—Whence does it come? When two persons have WILLED to create a debt—whence does it come? From the materials of the globe? Does it come even from the mind? No! it is nothing but a valuable product, created out of Absolute NOTHING, by the mere Fiat of the human Will. And when it is extinguished, it is a valuable product DECREATED into NOTHING by the mere Fiat of the Human Will.

156. But besides debts, there is an enormous mass of valuable property of a similar nature created by the mere will of the Legislature, such as Copyrights. It is true that the Legislature cannot make a Copyright a valuable thing; but it can prevent it from being destroyed. Now we ask—Are not the Copyrights held by a publisher part of his fixed Capital? Part of his Wealth? Just as much as so much land? Whence come they? From the materials of the Globe? or even from the Human Mind? It is quite clear that Copyrights are the pure creation of the Will of the Legislature.

Suppose that the Legislature were to abolish Copyrights, would not that be an actual *annihilation* of Wealth, and not merely the Dissolution of material atoms?

157. What again are the Funds? Nothing but valuable Rights created by the Will of the Legislature. Suppose Parliament were to abolish the Funds. Would not that be the *annihilation* of a vast amount of property?

Precisely the same considerations apply to vast amounts of property of a similar nature. Such as policies of insurance, leases, and annuities of

all sorts. They are all property created by the mere Fiat of the Human Will. And who can form the most distant conception of the value of all the Incorporeal property of this nature in Great Britain? In the species of private credit alone, which is the subject of this article, it is probably not far short of the value of the land of the country.

158. We may remark that Plutarch, long ago, saw that the business of Banking overturned the doctrines of the Physical Philosophers; for after describing the method of Discount, which was practised by the Athenian bankers (Δισκουντ) he says,—"εἴτα τῶν φυσικῶν δῆπου καταγελῶσι, λεγόντων μηδὲν ἐκ τοῦ μὴ ὄντος γενέσθαι."

"Then, forsooth, they may laugh to scorn the doctrines of the Physical philosophers who say that nothing can come out of nothing."

159. Moreover, this property, thus created by the wills of two persons, is of so stubborn a nature, that it cannot in general be decreed, except by the same power that called it into existence. We have seen some of its beneficial effects; but, on the other hand, when misused, its power is so terrible, like that of some volcanic agent, that it has blown societies to pieces. Too much of it is very frequently created in commerce, and it is necessary for public policy that some of it should sometimes be destroyed. In order to do this, there are Courts of Law instituted whose express purpose is to decreate this species of property. These are the Courts of Bankruptcy. Their especial purpose is to annihilate this species of property.

Hence we have shops for the express purpose of creating this species of property, which are BANKS. We have a public market for the express purpose of dealing in it, which is the ROYAL EXCHANGE; and we have Courts of Law for the express purpose of destroying it, when it cannot be done by the parties themselves, and these are the COURTS OF BANKRUPTCY.

160. Hence we see that taking the Definition of Wealth in its widest generality, as *everything* whose value may be measured, there are Economic Quantities of three distinct species. 1st, The products of the Earth, comprising all material substances; 2ndly, The products of the Mind, comprising all knowledge of different kinds; and 3rdly, The products of the Will, comprising all incorporeal property, such as credit, the funds, and all annuities of every description. In each of these there may be Property. And all of these various species of Products may be, and are, daily exchanged for one another, or amongst themselves, and therefore manifestly they must all be included in the Science of Exchanges.

We thus see that instead of there being only *one* source of Wealth, as so many Economists have said, that there are, in fact, *three* sources in which Wealth originates, the EARTH—the HUMAN MIND—and the HUMAN WILL.

None of these products, however, are absolutely Wealth in themselves. But men *wanting* and *desiring* to have them, and being willing to give something in exchange for them, give them Value, and constitute them Wealth.

161. Suppose, then, we make £ the general symbol for an Economic Quantity—that is to say

anything whatever whose value may be measured, and representing these various species of Quantities indifferently under the general symbol, we may say that there are in any country, quantities of this sort:—

£528,497,620
£27,956,298
£807,347,281
£24,572,674
&c. &c. &c.
&c. &c. &c.

Then we affirm by virtue of the principle of the Continuity of Science, and by the great Algebraical doctrine of the *Permanence of Equivalent Forms*, that whatever can be proved to be true Economically of any one of this series of Quantities must be true of them all. Moreover, that the fundamental conceptions of Economic Science must be of such a wide and general nature that they must grasp all these Quantities, of whatsoever nature they may be. Moreover, that all the fundamental axioms of the Science must be of that wide and general nature so as to grasp all the phenomena under one general expression.

162. As an example of the doctrine stated in the preceding paragraph, we may give this. No one looking at the series of Economic Quantities placed above, could tell of what species they were. Some may be land, some corn, some minerals, some ships, some money, some debts, some commercial shares, or copyrights, &c. Now what we say is this, that there can be but *ONE* cause of Value for them all. This at once annihilates the false distinctions between the causes of the Value of different species, which have been made by Economists. We see at once that *Demand* is the sole cause of Value of all Economic Quantities (VALUE.)

163. A banker's assets are composed partly of money, and partly of other securities of different kinds, such as debts. His liabilities, or *Deposits*, are exclusively Debts. Now, if we placed before our readers a banker's deposits and assets, thus—

£10,000 | £10,000

who could tell which were the deposits and which were the assets? And of the assets, who could tell what part was money, and what part debts? We see that the debts which are his assets, as well as his deposits, are entered under exactly the same general symbol, £. It follows, therefore, that they are all equally Economic Quantities, and must be subject to the same general laws.

We thus see that there are Economic Quantities of very different species, and a knowledge of Law and Commerce is absolutely indispensable in order to enable us to discern what Economic Quantities are. And then, by the very nature of Natural Philosophy, the fundamental conceptions must grasp all these Quantities of diverse forms and natures.

164. Having thus obtained these independent Economic Quantities, the purpose of the science is to discover the laws which regulate the variations of their Exchangeable Relations. And we say that they must be governed by the grand general Theory of Variable Quantities in general. For if not, the whole of Mathematical Science is shaken to its foundations.

165. It may be as well, perhaps, to explain our argument at somewhat greater length to our readers. Mathematical Science has under its dominion—1st. The Theory of pure number;

2ndly. The Theory of Dependent Quantities; 3rdly. The Theory of Independent Quantities. The Theory of pure number is named ARITHMETIC. Now the very basis of all Mathematical certainty is this, that the combinations of numbers shall be true under all circumstances, and when applied to all cases. Thus we say that in abstract numbers $3 \times 3 = 9$. And this must be true in all cases whatever. If we could imagine some branch of science in which $3 \times 3 = 11$, the science of Arithmetic would be shaken to its foundations.

The very same reasoning is applicable to the general theory of dependent Quantities. Like as in the case of pure number, there is a grand general Theory of Dependent Quantities, which must be applicable to all cases, and to all particular sciences whatever. And this is the reason why the various physical sciences, so widely different in their nature, are all brought within the grasp of the Differential Calculus. What can be more diverse in their natures than Astronomy, Optics, Sound, The Tides, Electricity, &c., &c.? And yet they are all brought within the grasp of Differential Equations, because they are only so many particular cases of Dependent Quantities.

If, then, we find a new order of Variable, or Dependent, Quantities, we are able to affirm that they must be subject to the grand general Theory of Variable Quantities in general. For if they were not, it would shake the whole of mathematical reasoning to its foundations, just in the same way as if we could imagine a science which broke loose from the general laws of number.

Now, in Political Economy we have to deal partly with a new order of Quantities altogether, and partly with a new relation, or quality, of Quantities, with which we are already familiar. The new Quantities are, of course, knowledge, &c., and Incorporeal Property, and the new quality is exchangeability.

Nevertheless, the object of the Science being to discover the Laws which regulate the Variable Exchangeable Relations of these Quantities, we say that they must be only a particular case of Variable Quantities in general. And therefore they must be subject to the same general laws as govern the variable relations of Physical Quantities.

Now the fundamental principle of all Physical Inductive Science is that there is only one general Theory, which accounts for *all* the phenomena. There is no Physical Science whatever, which any one ever thought could by any possibility be based on a multitude of conflicting fundamental theories.

Now it is against this fundamental principle of Natural Philosophy, that the whole of the Ricardian School of Political Economy sins. For that school enumerates a number of distinct classes of cases of Value, and it lays down a distinct fundamental Theory of Value for each. Now this is manifestly to shake all mathematical reasoning to its foundations, for it is as much as to say that here is a Science of Variable Quantities, which is *not* subject to the general Mathematical Theory of Variable Quantities.

This then is the ground of our condemnation of the Ricardian System of Economics. How very differently Condilliac treated the subject we have shown. (CONDILLIAC.)

166. We earnestly hope that our readers do not think we are indulging in mere metaphysical logomachy. Very far from it. The considerations we have presented are indispensably necessary to examine the fundamental nature of the enormously greater proportion of existing property. The ideas we have presented may be new to some readers, but they are simply indisputable principles of Law and Commerce. They are absolutely indispensable to understand the great subjects of Credit and Currency, which have produced such tremendous effects on the well being of nations.

167. We may observe that the whole system of Cash Credits, which we have been describing, shows, among many other things, the utter fallacy of what is called the CURRENCY PRINCIPLE, which asserts that no good can be done by increasing the quantity of money in a country, as well as that the issues of banks should be absolutely restricted to the quantity of money there would be, if they did not exist. We have seen that the whole of the magnificent works which were carried on by means of Credit created an excess of the money actually, and which displaced no money whatever. The very same phenomenon was exhibited in England during the same period. It was soon after 1770 (BANKING IN ENGLAND, § 106) that the prodigious development of her industrial energies began, and to carry out these gigantic works multitudes of country Banks started up on all sides, and filled the country with their rotten notes. Bad as this currency, however, was, it was by means of it that these great works were done, and they could never have been done without it. It was the fatal monopoly of the Bank of England which prevented powerful Banks being formed, and permitted these mushroom shopkeepers to start up and turn Bankers.

On Open Credits.

168. We have seen that Cash Credits are always created to forward a future operation, and are never founded on a past one. There is always, however, collateral security taken, so as to protect the Bank against loss. In the keen spirit of competition, however, a hazardous system has sprung up of granting these credits without collateral security. This system is a good deal practised abroad, we believe, and is called *Crédit à Decouvert*, and in this country *Open Credits*. It is manifestly far more hazardous than Cash Credits, or common discounting, because there are always two names at least in such cases. We believe that the Joint Stock Banks, which failed a few years ago, indulged to a great extent in this dangerous system.

On Accommodation Bills.

169. We now come to a species of Credit, which will demand great attention, because it is the curse and the plague spot of Commerce, and it has been the great cause of those frightful commercial crises, which seem periodically to recur, and yet though there can be no doubt that it is in many cases essentially fraudulent, yet it is of so subtle a nature as to defy all powers of Legislation to cope with it—at least according to the still unreversed doctrines of Westminster Hall.

170. We have shown by the exposition of the system of Cash Credits, that there is nothing

essentially dangerous or fraudulent in a Credit being created for the purpose of promoting future operations. On the contrary, such Credits have been one of the most powerful weapons ever devised by the ingenuity of man to promote the prosperity of the country. A certain species of this Credit, however, having been grossly misused for fraudulent purposes, and having produced great calamities, we must now examine wherein the danger and the fraud of this particular form of Credit lie.

171. When a Bill of Exchange is given in exchange for goods actually purchased at the time, it is called a Real Bill, and it is supposed by many writers, and even by many commercial men, that there is something essentially safe in it, because, as the goods have been received for it, it is supposed they are always there to provide for the payment of it. And that only so much Credit is created, as there are goods to redeem it. Thus, in the article *Credit*, in the *Encyclopædia Britannica*, it is said,—“Every sum of Credit, therefore, must be founded on a transfer of a corresponding sum of Capital, and the whole amount of Credit existing, at any time, can never exceed that of the lent Capital.”

When we see such gross, dense, *crassa ignorantia* in a publication of the character and pretensions of the *Encyclopædia Britannica*, what are we to expect from the general public?

172. Leaving out of consideration at present the cases where Credit is created without the transfer of any Capital at all, it is manifest, from the description of the system of Credit already given, that it is utterly erroneous to say that the quantity of Credit cannot exceed the quantity of Capital lent. A Bill of Exchange, it is true, only arises out of a transfer of goods, but then a fresh bill is created at *each* transfer. In the ordinary course of business, there will always be in general at least *twice* the amount of Bills to what there are goods. But if twenty transfers took place, twenty bills would be created. If goods to the amount of £100 were transferred twenty times, supposing even that the price of the goods did not change, which it most assuredly would, there would be Credit created to the amount of £2,000. And it would only be the last holder of the goods, who would have them, and be enabled to devote the proceeds to the payment of the last Bill only. The remaining nineteen Bills must manifestly depend upon other sources for payment.

173. The security, therefore, which is supposed to reside in Real Bills, on account of their being founded on the transfer of goods, is shewn to be to a great extent imaginary. Let us suppose, however, that A sees that a profitable operation *may* be done. The Bank will not, as traders do, make him an advance on his own name alone. It must have at least *two* names. A therefore goes to B, and gets him to join him as security to the Bank, on engaging to find the funds to meet the bill when due. A then draws a bill on B, who accepts it to *accommodate* A, as it is called, and such a Bill is called an *Accommodation Bill*.

The Bill thus created without any consideration, as is termed in legal language, or in common language, without any transfer of goods, may be taken to a Banker to be discounted, like any other

Bill, an operation may be performed, and, if successful, the bill may be paid with the proceeds.

174. Stated, therefore, in this way, there is nothing more objectionable in such an Accommodation Bill than in any ordinary Real Bill. The security is just the same in one case as in the other. In the one case goods *have been* purchased, which will pay the bill, in the other case goods *are to be* purchased, whose proceeds are to pay the bill. In fact, we may say that all commercial credit is of this nature, because a credit is created to purchase the goods whose proceeds are to pay it.

175. There is therefore clearly nothing in the *nature* of this species of paper worse than in the other, and when carefully used, nothing more dangerous. Cash Credits, which have been one of the safest and most profitable parts of Scotch Banking, and have done so much for the country, are all of this nature. They were created without any anterior operation, for the express purpose of stimulating future operations out of which the Credit was to be redeemed. There is therefore not anything more criminal, atrocious, and vicious in the one system rather than in the other. Or if there be, the criminality and atrocity must lie in the difference between *have been* and *is to be*.

176. Nevertheless, as it is indubitably certain that most of these terrible commercial crises which have so frequently convulsed the nation, have sprung out of this species of paper, it does merit a very considerable portion of the obloquy and vituperation heaped upon it. It is therefore now our duty to investigate the method in which it is applied, and to point out wherein its true danger lies.

177. The security supposed to reside in Real Bills as such, is, as we have seen, exaggerated. But there is at least this in them, that as they only arise out of the real transfers of property, their number must be limited by the nature of things. However bad and worthless they may be individually, they cannot be multiplied beyond a certain extent. There is therefore a limit to the calamities they cause. But we shall show that with *Accommodation Bills* the limits of disaster are immensely and indefinitely extended, frequently involving in utter ruin all who are brought within their vortex.

178. We shall now endeavour to explain to our readers wherein the difference between real and accommodation papers consists, and wherein the true danger lies.

Let us suppose that a manufacturer or wholesale dealer has sold goods to ten customers, and received ten *bonâ fide* trade bills for them. He then discounts these ten bills with his banker. The ten acceptors to the bills having received value for them, they are the principal debtors to the Bank, and are bound to meet them at maturity, under the penalty of commercial ruin. The Bank, however, has not only their names on the bills, but also that of its own customer, as security. It moreover generally keeps a certain balance of its customer in its own hands, proportional to the amount of the limit of discount allowed. Now even under the best circumstances, an acceptor may fail to meet his bill. The Bank then immediately debits its customer's account with the amount of the bill, and gives it him back. If there should not be enough, the customer is

called upon to pay up the difference. If the worst comes to the worst, and its customer fails, the Bank can pursue its legal remedy against the estates of both the parties to the bill, without in any way affecting the position of the remaining nine acceptors, who, of course, are still bound to meet their own bills. Even supposing, however, it is only the acceptor who fails to meet his bill, the Bank would not probably take a second bill upon him, nor would a dealer sell his goods again to him after giving him the annoyance of having to take up his bill.

179. In the case of accommodation paper, there are very material differences. To the eye of the banker there is no visible difference between real and accommodation bills. They are, nevertheless, very different, and it is in these differences that the danger consists.

In accommodation paper, the person for whose accommodation the drawing, indorsing, or accepting is done, is bound to provide the funds to meet the bill, or to indemnify the person who gives his name. In the most usual form of accommodation paper, that of an acceptance, the acceptor is a mere surety, the drawer is the real principal debtor.

Now suppose, as before, that A gets ten of his friends to accommodate him with their names, and discounts these bills at his bankers, it is A's duty to provide funds to meet every one of these bills at maturity. There is in fact only one real principal debtor, and ten sureties. Now, these ten accommodation acceptors are probably ignorant of each other's proceedings. They only give their names on the express understanding that they are not to be called upon to meet the bill. And accordingly they make no provision to do so. If any one of them is called upon to meet his bill, he immediately has a legal remedy against the drawer. In the case of real bills, then, the bank would have ten persons, who, would each take care to be in a position to meet his own engagement; in the case of accommodation paper, there is only one person to meet the engagements of ten. Furthermore, if one of ten real acceptors fails in his engagement, the bank can safely press the drawer; but if the drawer of the accommodation bill fails to meet one of the ten acceptances, and the bank suddenly discovers that it is an accommodation bill, and they are under large advances to the drawer, they dare not for their own safety press the acceptor, because he will of course have immediate recourse against his debtor, and the whole fabric will probably tumble down like a house of cards. Hence the chances of disaster are much greater when there is only one person to meet so many engagements, than when there are so many, each bound to meet his own.

180. We see, then, that the real danger to a bank in being led into discounting accommodation paper is, that the position of principal and surety is reversed. They are deceived as to who the real debtor is, and who the real principal is, being precisely the reverse to what they appear to be, which makes a very great difference in the security to the holder of the bills. To advance money by way of cash credit, or by loan with security, is quite a different affair; because the bank then knows exactly what it is doing, and as soon as anything occurs amiss it knows the

remedy to be adopted. Moreover, it never permits the advance to exceed a certain definite limit, but it never can tell to what length it may be inveigled into discounting accommodation paper, until some commercial reverse happens, when it may discover that its customer has been carrying on some great speculative operation, with capital borrowed from it alone.

181. Such appears to us to be the true explanation of the real danger of accommodation paper, and which was given in our *Theory and Practice of Banking*, Vol. I. 243, and we may say that its correctness has received the sanction of the high authority of Mr. Commissioner Holroyd, who quoted it in his judgment in the case of the great leather frauds, *Laurence, Mortimer, and Schrader*, as appears in the *Standard*, March 7, 1861.

To exhibit to our readers how this nefarious system is carried on, it will be advisable to give an outline of this celebrated case.

In the first place, in order to explain how such things are possible, we may perhaps call attention to a delusion which is very prevalent among uninformed writers, namely, that Bills of Exchange are paid in money. It is true that Bills of Exchange must always be expressed to be payable in money, but, as the reader may see under the article *BANK*, very few bills are really ever paid in money. When a customer has a banking account, the banker discounts his bills by writing down the amount to his credit, and this credit is called a *DEPOSIT*. The customer always pays his bills by drawing upon this credit, and when it gets low, the usual practice is for him to discount a fresh batch of bills. Thus, in ordinary times, the previous debts are always paid by creating new debts. No doubt, if the banker refuses to discount, the customer must meet his bills in money, but then no trader ever expects to do so. If his character be good, he counts upon discounts with his banker almost as a matter of right, and therefore to call upon him to meet his bills in money may oblige him to sell goods, &c., at a great sacrifice, or may cause his ruin.

182. However, it is always supposed that the bills discounted are good ones, that is, they could be paid in money if required. Thus though in common practice very few bills are really paid in money, it is manifest that the whole stability of the Bank depends upon the last bills discounted being good ones.

183. Now let us suppose that for some time a customer brings good bills to the Bank, and acquires a good character, and thus throws the banker off his guard. Meeting some temporary embarrassment, perhaps, he is in difficulty to meet his bills. In order to get over this difficulty, perhaps, he goes to some man of straw, and perhaps for some trifling consideration gets him to accept a bill, without having any property to meet it. He then takes this fraudulent bill to his banker. Thrown off his guard, perhaps, by his previous regularity, the unsuspicious banker buys this bill, and gives him a deposit for it. This deposit goes to pay the former bills. In the mean time the rotten bill is falling due and must be met. The acceptor has manifestly no means to meet it, and the only way to do so is to create some more of these rotten bills. Now the drawer may be speculating in trade and losing money every day. But his bills must be met, and there

is no other way of doing so but by constantly creating fresh rotten bills to meet the former ones. By this means, the customer may extract indefinite sums of money from his banker, and give him in return so many pieces of paper! Now, when times are prosperous and discounts are low this system may go on for many years. But at last a commercial crisis comes. The money market becomes "tight." Bankers not only raise the rate of discount, but they refuse to discount so freely as formerly, they contract their issues. All these rotten bills are in the Bank and must be met. But if the bankers refuse to discount they must be met with money. But all the property which the conspirators ever had may have been lost twenty times over, and consequently when the crisis comes they have nothing to convert into money! Then comes the crash! Directly the banker refuses to pay his customer's bills by means of his own money, he wakes to the pleasant discovery that he has been dancing upon nothing! and finds that he has been paying all his customers' bills for many years with his own money!

184. This is the *rationale* of accommodation paper; and here we see how entirely it differs from real paper. Because with real paper, and *bonâ fide* customers, though losses may come, still directly the loss occurs, there is an end of it. But with accommodation paper the prospect of a loss is the very cause of a greater one being made, and so perpetually in an ever widening circle, till at last the canker may eat into his assets to any amount almost. It is also clear that if a man having got a good character may sometimes do so much mischief to a single banker, the capacity for mischief is vastly increased, if from a high position, and old standing, he is able to discount with several banks. For he is then able to diminish greatly the chances of detection.

185. In the case above mentioned, Laurence, Mortimer, and Co. were of very high position, and of old standing in the commercial world. They were leather and hide factors, and the house was of above fifty years' standing. They bought hides on commission for tanners, and sold leather, and had leather consigned to them for sale. The hides were paid for by the tanners' acceptances of the factor's drafts at four months. In the course of business, they got connected with a considerable number of houses which were in a state of insolvency. To support these houses, and to extend their own operations, they entered into an enormous system of accommodation paper. They were in the habit of advancing money to their customers at five per cent., and then discounting these bills at their bankers at three per cent., thus making two per cent. by the transaction. When their customers often lost the money, their bills were renewed, or new ones created of arbitrary amounts to conceal the loss. The house had an agency in Liverpool, which pursued exactly the same course. They set up people ostensibly in business for the purpose of drawing on them. And these "dummies" drew upon the house, and these cross acceptances were afloat to a large amount. This will be sufficient to give an idea of this complicated network of cross transactions between the house and its satellites. In the mean time, heavy losses were sustained in their trade transactions, which were in fact extracted out of the bankers by the fraudulent concoction of bills

among the losers. The high standing of the house enabled them to entangle no less than twenty-nine banks and discount houses in their meshes. At the time of the stoppage, the London houses had liabilities of £820,000, of which £620,000 consisted of these fraudulent bills. The Liverpool houses had liabilities of £158,750, out of which £130,000 were fraudulent. Such is one example of the mischief worked by this nefarious system.

186. A still more terrible example is the case of the Western Bank of Scotland, which is fully detailed under BANKING IN SCOTLAND, § 310-328, which was in great part caused by the fraudulent proceedings of four houses. The cases there detailed, show to what a gigantic length these proceedings were carried. The Macdonalds had bills discounted to the amount of £408,716, drawn upon 124 acceptors, of whom at least 70 were men of straw, who made it a regular trade to accept bills for a small commission! In fact, they kept an agent in London for the express purpose of procuring accommodation acceptances.

187. From these accommodation bills to forged bills there is but one step. It is but a thin line of division between drawing upon a man who is notoriously utterly unable to pay, and drawing upon a person who does not exist at all, or forging an acceptance. In practical morality and in its practical effects there is none. Traders sometimes do not even take the trouble to get a beggar to write his name on their bills, but they invent one. The case of traders dealing with a number of small country connections affords facilities for such practices. They begin by establishing a good character for their bills. Their business gradually increases. Their connections gradually extend all over the kingdom. The banker, satisfied with the regularity of the account, cannot take the trouble of sending down to inquire as to the acceptor of every bill. The circle gradually enlarges, until some fine morning the whole affair blows up. The ingenuity sometimes exercised by traders in carrying out such a system is absolutely marvellous.

188. It is in times of speculation in great commodities that accommodation paper is particularly rife. In a great failure of the harvest when large importations are required, and it is expected that prices will rise very high, every corn merchant wants to be able to purchase as much as possible. But if no sales have taken place there can be no real trade bills. They therefore proceed to manufacture them in order to extract funds from bankers to speculate with. No banker in his senses would actually advance money for them to speculate with, with his eyes open. Nevertheless, they must have the funds from the bankers, and this they do by means of cross acceptances, which they go and discount with their bankers. They then, perhaps, buy a certain amount of corn or any other goods, and many bankers will discount their bills, with the collateral security of the bill of lading. And this they may repeat many times over, till the quantity of Credit created is something astonishing. In the Crimean war there was a great demand for shipping, and there was an enormous amount of accommodation bills manufactured by the Liverpool shipowners

and discounted all over the kingdom. The results were frightfully disastrous.

189. The insurmountable objection, therefore, to this species of paper, is the dangerous and boundless facility it affords for raising money for speculative purposes. And there is much reason to fear that this pernicious system prevails to a much greater extent than is generally supposed. The legislature has imposed bounds upon the issues of notes by banks, but there is much greater reason that some attempt should be made to curb the extravagant magnitude to which this detestable practice has been developed. The Bank of England is strictly forbidden to issue a single £5 note of accommodation paper, and is it to be tolerated that any set of adventurers may set afloat many hundred thousand pounds worth of their accommodation paper?

190. To deal, however, legislatively, with fictitious paper is the most perplexing commercial problem of the day. The difficulty consists in determining what is really an accommodation bill. An accommodation bill is defined to be a bill to which the acceptor, drawer, or indorser, as the case may be, has put his name, *without consideration*, for the purpose of benefiting, or accommodating some other party, who is to provide for the bill when due. But the whole difficulty turns upon the *consideration*. The consideration may be of many sorts, and does not by any means denote a sale of goods at the time. Moreover, a bill may be an accommodation bill at its creation, but if any consideration be given during the period of its currency, it ceases to be an accommodation bill.

191. Moreover, the consideration may be of many sorts. If A draws a bill upon B who accepts it for A's accommodation for the express purpose of enabling him to go to a Bank and get money for it, that is a pure accommodation bill, and manifestly fraudulent. But if B draws an exactly similar bill at the same time on A, and A accepts it for the accommodation of B, then neither of the bills are accommodation bills.

To an unlearned reader, this may seem monstrous doctrine. It is, nevertheless, firmly established law. In the case of *Rolfe v. Caslon* (2 H. Blackstone, p. 571), A and B being desirous to accommodate each other, each drew a bill upon the other, and accepted one in return, the two bills being precisely alike, in the date, sum of money, and times of payment. Neither party having any effects of the other in his hand. The court were clearly of opinion that the two bills were mutual engagements, constituting on each part a debt, the one being a consideration of the other. This doctrine was repeated and confirmed in the case of *Cowley v. Dunlop* (7 T. R. 565), in which Grose, J., said the instant the bills were exchanged, each was indebted to the other, in the sum which was the amount of their respective acceptances, for the counter acceptances were a good consideration to found a debt upon either side respectively. In the case of a single accommodation acceptance, said the learned judge, there is no debt to the acceptor; the debt accrues only by payment of the money. The acceptor, *quâ acceptor*, can never be a creditor; his acceptance imports the admission of a debt from him to another, and when he has paid an acceptor, if he paid for any other person

in consequence of any request from that other he becomes a creditor, not on the face of the bill, but by a contract collateral to the bill. When two persons exchange acceptances, each becomes the debtor of the other upon his accepted bills. But when a man accepts without consideration he is never a creditor of the person for whom he accepts till he pays; from that payment arises the debt; but when the acceptance was exchanged, the debt arises from these acceptances. This doctrine was repeated and confirmed in the cases of *Rose v. Sims* (1 B. & Ad. 521), and *Buchler v. Bullivant* (3 East. 72), when it was adopted by the whole Court of King's Bench.

192. This doctrine shews how utterly hopeless it is to deal legislatively with accommodation paper. At least they must be very poor rogues indeed who cannot manufacture any amount of real *bonâ fide* bills they please. Two ragamuffins, who neither possess one sixpence in the world, have only to get a quire of paper—if they can pay for it. One engages to pay £1,000 to the order of the other. That would be an accommodation bill. But the second then engages to pay £1,000 at the order of the first. These are no longer accommodation bills! But given for a *consideration*. If two such bills are good, then two thousand, or any larger number, are equally good. We suspect that Bankers would look askance at such paper. But Westminster Hall declares them all to be good *bonâ fide* bills, given for a good *consideration*.

193. That such is the well settled doctrine of Westminster Hall is beyond dispute. And perhaps it may ill become us to offer any suggestions on what has received the sanction of the Courts for so long a time. Nevertheless at the hazard of being thought presumptuous, we may make a few remarks. When we search for the foundation of the doctrine, we find it to be this.—That by giving their cross acceptances the parties become *indebted* to each other. That by these cross acceptances mutual *debts* are created. But is this doctrine quite impeccable? It is admitted that when B accepts a pure accommodation bill for A, no debt is created. It is nothing whatever but a piece of waste paper between the parties. Of course a similar bill upon A would be an absolute nothing as well. Now the question is this.—It being admitted that these two bills *separately* are absolute nothings, how can it be that when created *together* they spring into existence as Debts? A debt being as we know valuable property. It is a doctrine very hard to understand.

194. In a real bill the drawer may of course sue the acceptor. But in an accommodation bill he cannot. Suppose A draws a pure accommodation bill on B, for £100 at three months. Then of course he cannot sue him on it. But suppose one month after the first bill, B draws a bill of £100 at six months on A, without any consideration whatever but his previous acceptance. Then according to the doctrine stated above, the first bill which we may suppose never to have quitted the drawer's possession, immediately becomes a real bill, and A may sue B if his acceptance be unpaid. Did such a case as this ever occur? And could A recover under such circumstances? And yet that is the consequence that must necessarily follow, if it be true that mutual

accommodation acceptances constitute mutual debts between the parties.

195. We venture with the greatest deference to think that a fallacy lurks at the bottom of the doctrine. An accommodation acceptance in the hands of the drawer is simply *nil*. Directly he passes it away, it becomes in effect, the joint promissory note of the two parties. The acceptor cannot incur a liability without the drawer at the same time incurring an equal one. To suppose that one joint promissory note of two parties should be a *consideration*, for a second promissory note of the same parties seems a very strange idea. When a man is already a coöbligant as drawer on a bill, to suppose he can make that bill a good consideration for becoming coöbligant as acceptor on another bill with the same person, seems a most unaccountable doctrine. To suppose that a man can make a liability he has already incurred, a *consideration* for incurring another seems most extraordinary.

196. A consideration in commerce means something *external*. It is a *security* for incurring a debt. If I buy another man's debt, that is a consideration or *security* for creating one of my own. If the Government has created a debt, as the public funds, or Exchequer bills, that may be a good consideration, or security, for the Bank of England to create notes in exchange. So a banker creates a debt, either by notes, or a deposit, in exchange for the bills of his customer. In these cases there is an exchange of independent securities. Neither party are coöbligants, or liable with the other. But how can a liability a man has already incurred be a *consideration* or *security* for incurring a second one? Suppose a bank issues £10,000 in notes. Is the previous issue to be a security for issuing a second amount? If this be a good consideration or security, then indeed the philosopher's stone is at last discovered! There is no need to cross half the globe in search of an El Dorado. All the treasures of California and Australia are dust in the balance compared to this. Only let two men provide themselves with a slip of paper, and shut themselves up in a room, and in the twinkling of an eye they can make themselves richer than ever Solomon was.

197. If it were possible for each party to incur a liability on account of the other, separately, and without himself being also bound, it might alter the case. But in accommodation paper, neither party incurs an obligation without the other being also equally liable. A second bill is, therefore, nothing more than a dilatation of the first bubble; and to suppose that it can be a consideration—a security for the first bubble—to swell it to twice its previous dimensions, is contrary to the usual experience of bubbles.

198. We have felt bound to lay these observations before our readers. As we have already warned them that they are contrary to the established doctrine of Westminster Hall, they must, of course, be held to be fallacious; at least, the probabilities of their being so are very great indeed. But it may, perhaps, exercise the ingenuity of our readers to point out their fallacy. At all events, what we have said, right or wrong, may serve to fix the attention of our readers upon the doctrine under discussion; because, however it may be regarded, it is one of the extreme subtlety. It is one which sanctions a

practice which, without its sanction, would appear to any plain person to be a gross fraud; and it is this practice which has caused incalculable disasters in commerce, and, while it is held to be good, entirely precludes the possibility of dealing legislatively with so great a curse.

On the Transformation of Temporary Credit into Permanent Capital.

199. We have already seen that in commerce the *Release of a Debt* is in all cases whatever absolutely equivalent to the *Payment of Money*; in strict accordance with the Algebraical doctrine that — \times — is in all cases whatever absolutely equivalent to + \times +. Thus, as Diophantus said 1,400 years ago:—*Λείψιν ἐπὶ λείψιν πολλὰ πλεονασσέεισα ποιεῖ ὑπαρξιν*.

Defect multiplied into defect gives existence—which, in Commercial Algebra, means simply this, that the *RELEASE of a DEBT is AUGMENTATION of CAPITAL*.

We shall now give some examples of this, which will probably startle some of our readers.

200. When it is published to the world that the Bank of England has a paid up capital of £14,000,000, and that the various joint stock banks of London have paid-up capitals of this magnitude—

London and Westminster	£1,000,000
Union Bank	720,000
Joint Stock Bank	600,000
London and County Bank	600,000

Does not the whole world, except those very few who are conversant with the mechanism of banking, believe that the Bank of England, and the joint stock banks, have these sums of capital paid up in hard MONEY?

201. What will they say when they learn that this idea is pure *moonshine*! These banks never had anything like that sum paid up in actual money at all. Of course it is utterly impossible to tell how much was ever paid in money, but this we are quite safe in saying, that not the *third* part of these sums was ever paid up in *money*. At least two-thirds, probably more, of these gigantic sums of paid up capital are nothing more than the *Banks' own CREDIT turned into CAPITAL*!

202. In order to see how this was done, the reader has only to turn to *BANKING IN ENGLAND*, § 81, 82, where the mode of increasing the capital of the Bank in 1697 is described. The Bank was founded by means of the payment in *money* of £1,200,000. It afterwards, in the course of business, issued notes to a considerable amount. Now, these notes were *DEBTS*, or *NEGATIVE QUANTITIES*, as we have seen before. The Bank, therefore, by issuing these notes, had put itself into a negative position. After it stopped payment, these notes fell to a heavy discount. In 1697, it was determined to increase the capital of the Bank, and this was done by receiving £800,000 of Exchequer tallies, and £200,000 of *its own Depreciated Notes*. These depreciated notes were received at their full value as cash. And thus we see at once that at the first *Augmentation of Capital* £200,000 consisted of *its own Depreciated Notes*—or *CREDIT*.

203. An exactly similar proceeding is described in *BANKING IN SCOTLAND*, § 288. In 1727, the Bank of Scotland increased its capital. The call

was paid up partly in the Bank's own notes. An outcry was made against this, but the directors justly answered, "But the objectors do not at all consider this point. For the payments are many of them made in specie, and bank notes are justly reckoned the same as specie, when paid in on a call of stock, because when paid in, it LESSENS THE DEMAND on the Bank."

Here we see that the Directors clearly understood that the *Release of a Debt* is in all respects equivalent to the *Payment of Money*. The banks had issued their own notes, on the discount of bills, or on the receipt of money. For whatever reason they were issued, they were debts, or negative quantities, and the bank was in debt, or in a negative position, in regard to the holders of them. When the call was made, the subscribers might either pay in money, which would have been $+ \times +$, or in the bank's own notes; that is, they released it from a debt due by it to them, which was $- \times -$. And we see plainly that the two operations were absolutely equivalent. At every further increase of capital, the very same operation would be repeated, payment in money and in the bank's own notes would always be treated as exactly equivalent; and hence we see that at every fresh increase of capital a certain quantity of the bank's own *Temporary Credit* would be turned into *Permanent Capital*.

204. Thus we see that for 1,400 years Algebraists had adopted the empirical rule that $- \times -$ gives $+$, and the real explanation has only been given within very recent times indeed. For 150 years merchants have been acting on the principle that the *Release of a Debt* is in all respects equivalent to the *Payment of Money*; and, in fact, owing to the immense development of credit, or debts, or negative quantities, in modern commerce, the immense majority of payments are made in this way. And it is left to the year 1862 to show that this latter operation is only one example of the great general Algebraical law!

205. Such are the methods by which the Capital of a Joint Stock Bank, which issues notes, may be increased. It might be thought, perhaps, that it is only Banks which issue notes that can thus turn their Credit into Capital. But that is a complete error. We have seen in the article *BANK*, that the very essence of Banking consists in making advances by creating debts, either in the form of bank-notes, or in credits, named *DEPOSITS*. Thus all the Joint Stock Banks of London, other than the Bank of England, do business exclusively by creating Deposits. Now suppose a customer of one of these Banks has a Balance, or Deposit, on his account. The Bank determines to increase its Capital, and the customer wishes to take part of the Stock. He may either pay in money, or he may give the Bank a Cheque on his account. This is exactly the same thing as paying the Bank in its own notes. It is the *Release of a Debt*. Supposing he has not enough on his account to pay for the stock he wishes to purchase, he may bring the bank bills to discount. The Bank discounts these bills, or buys these debts, by creating another debt, in the shape of a Credit, or Deposit, on the customer's account, which is a Negative Quantity, exactly equivalent to a Bank Note. The customer then gives the Bank a cheque on his account, that is, he releases it from the debt it has just created in

his favor. And that Debt released then becomes AUGMENTATION of CAPITAL. That is, as before, $- \times -$ gives $+$.

206. It is true that this method cannot be adopted to so great an extent by the public when the Bank does not issue notes. Because the general public would not have any claims against the Bank, but only its own customers, and those who might happen to have cheques given to them by them. But this is the way in which the Capital of all Joint Stock Banks is increased, and it may go on to any extent without any payment in money.

207. In a precisely similar way, when great public loans are contracted for, a very large portion of them is always created by means of Credit. The customers of a bank wish to subscribe to a loan. They bring it a batch of bills to discount. They draw cheques against the deposits created on the discount of these bills. These cheques may be paid into the credit of the great contractors at their bankers, and transferred an indefinite number of times without ever being required to be discharged in money, they may, in fact, be discharged by being cancelled against other Credits.

On the Extinction of Credit.

208. In the preceding sections we have examined the various operations out of which credit is generated, and the transcendent functions it performs in production—it being, in fact, the grand productive, or circulating power of modern times. We have now to consider the various modes in which it is extinguished. Because it is by its very nature, and as appears by its very name, transitory, and is created always with the express purpose of being destroyed. It is when it cannot be destroyed that it produces such dire effects. It is UNEXTINGUISHED CREDIT which produces those terrible monetary cataclysms, which shake nations to their foundations, scattering ruin and misery among societies. The inability of credit shops to extinguish the credit they have created, commonly called the failures of banks, are, perhaps, among the most terrible social calamities of modern times.

209. We have seen that in commerce bills are created by the transfers of commodities, a fresh one being created at each transfer. And this debt becomes itself a transferable commodity, and is capable of circulating an indefinite number of times, like money. This debt, or promise to pay, might be made payable in anything the parties pleased—coin, wine, oil, &c., &c.—and in some countries is so. But in this country, instruments of credit are always expressed to be payable in money. But we have already seen that a debt is only a lower form of money, and hence there are four different ways in which credit may be extinguished.

1. *By Payment in Money.*
2. *By Exchanging one Debt for another.*
3. *By the Creation of fresh Debt to discharge the old.*
4. *Where parties are mutually indebted to each other, each being Creditor of, and each Debtor to, the other, they may make a Mutual Release of Debts.*

The different proportions in which these various methods are employed to extinguish credit, have very great effect in determining what quantity

of specie is required to carry on the commerce of a country.

210. Before the establishment of banks, credit could only in general be extinguished by payment in money. But of course the same quantity of money would extinguish an infinite series of bills; in fact, it is always by the *circulation* of money that bills are extinguished. Bills are always generated by the circulation of commodities, and always extinguished by the circulation of money. Each manufacturer, or merchant, would sell to a number of wholesale dealers, who would each buy from a number of manufacturers or merchants. They would then each sell to a number of retail dealers, who would each sell to a number of customers, or consumers. Many of these customers would pay in ready money, or at least they must all do so ultimately, so that the retail dealers would always have a constant stream of ready money coming in to discharge their bills, as they fell due in succession.

Now, as each wholesale dealer sells to a number of retail dealers, who would always have a stream of ready money coming in to pay their bills, each wholesale dealer would always have a stream of ready money coming in from many sources, to enable him to discharge his various bills to the merchants and manufacturers. In a similar manner, the merchants and manufacturers would always have a stream of money coming in from a multitude of sources to discharge their bills to foreigners and producers of raw materials. But of course each of them would spend a certain portion of their profits as revenue, that is, they would be customers of the retail dealers. And consequently, by these means, the identical pieces of money would perform a perpetual circulation among the various classes of society. Each person collecting a multitude of little sums into one reservoir, as it were, and then discharging the aggregate so collected into a multitude of other channels. And so on *ad infinitum*.

211. Now, the least consideration will show that the quantity of money being exactly the same, its circulation may be extremely languid, moderately rapid, or extremely rapid. And as in commerce, assumed to be sound, profits arise out of exchanges, it is clear that within certain limits the greater the profits will be, according as the circulation of money is more rapid. Moreover, we see this, that the quantity of credit generated does not depend simply on the quantity of money, but on its quantity multiplied into the velocity of its circulation.

212. We thus see how the fundamental distinction between bills of lading and bills of exchange is illustrated, which is at the root of the currency question. The bill of lading is not generated by the transfer of the *Property* of the goods, but only by a transfer of *Possession*; and when the possession is given up, the bill of lading is cancelled. Thus the bill of lading is only extinguished by the delivery of the very goods it represents. But bills of exchange are generated by the transfer of the *property* of goods, and are absolutely severed from them, and circulate independently in commerce, and are exchangeable for money at a given time. Bills of Lading can never exceed in quantity the goods they represent; instruments of Credit cannot exceed the Quantity of the Circulation of Money. Be the

circulation of goods fast or slow, the quantity of bills of lading cannot vary, but the quantity of credit varies with the circulation of money, so that if the circulation be increased tenfold, credit may always be, and is almost necessarily increased tenfold.

213. The preceding considerations show that Credit is limited by the Circulation of Money. It is clear, therefore, that if some substitute for money be invented, or if by improved methods a less quantity of Money can do the same duty as a greater quantity, the limits of Credit may be proportionably extended. And new methods of extinguishing credit would come into existence. This is done to an enormous extent by the institution of Banks. We have fully described under the articles *BANK* and *CLEARING HOUSE* how debts are extinguished by the creation of new debts, and partly by the exchange, or cancellation, of debts by the Bankers *inter se*. The extension of business by the means of erecting a vast superstructure of credit upon a basis of bullion is something almost incredible. It is probably quite safe to say that not five per cent. of commercial transactions are ever settled in money. Such is the proportion of *Debts*, or *Negative Quantities*, to Money in Commerce.

On the Limits of Credit.

214. In the preceding sections we have endeavoured to lay before our readers an exposition of the actual mechanism of the system of Credit, and shew its powerful effects as a productive agent. Credit, in fact, is to money what steam is to water. And like that power, while its use within proper limits is one of the most beneficent inventions ever devised by the ingenuity of man, its misuse by unskilful hands leads to the most fearful calamities. It is chiefly the abuse of Credit by which that *over-production* is brought about, which causes those terrible catastrophes called Commercial Crises. It is, therefore, essential to ascertain its limits.

215. The true limits of Credit may be seen from the etymology of the word. Because all Credit is a *Promise to pay something in Future*. And that "something," whatever it be, is the *VALUE* of the promise. That something need not necessarily be money. It is perfectly possible that it should be anything else. The practice of interest, or usury, was in force before the invention of money. It might be a promise to do something. As an example of this we may take a postage stamp, which is a promise by the State to carry a letter. And this service is the value of the stamp. Now it is quite clear, and to shew it we have only to appeal to every one's experience, that a postage stamp is a valuable thing. It passes currently as small change. Now, people take postage stamps as equivalent to pence, because they often wish to send letters by the post. The recent regulations that stamps shall be convertible into money at any post office, makes them in all respects part of the currency of the country. They are, in fact, *id.* notes.

216. Now, the only real difficulty in the case, is to observe that the naked "promise to pay" is independent exchangeable property, quite distinct from the thing itself, and it may circulate in commerce just the same as the thing itself. This may surprise some readers at first, but to shew its

truth they need only appeal to their own daily experience, where they see Bank Notes, Cheques, and Bills of Exchange, circulating to the extent of hundreds of millions, and performing all the functions of money. We shall see below that J. B. Say, whose doctrines of Credit we shall examine in the next section, fully acknowledges that an instrument of Credit has an actual value, and may perform the duties of money.

217. But, of course, it is quite manifest that the VALUE of the promise is the *Thing itself*, and consequently if the thing itself fails the promise has lost its *value*. This consideration, therefore, at once indicates the limit of Credit. Assuming Credit to be, what it is in its best known form in this country, the promise to pay money, it is quite clear that every future payment has a *present value*. Consequently, whenever the possession of money at any time is actually certain, the Right to receive it is an exchangeable Property, which may be bought and sold.

218. Commercial Credit, however, does not rest upon so solid a basis as the *certainty* of being in possession of money, for then it would be as safe as money itself, and losses would be unknown. It is based upon the expectation of receiving money at a certain time. A trader buys goods, and gives his promise to pay money, upon the reasonable expectation that he will be able to sell them for money before the bill becomes due; or, at least, that he shall be in the possession of money before that time. That is, he *produces*, or brings and offers them for sale, in the hope that they will be *consumed*, or bought. If he brings forward for sale more of any species of goods than is suitable to the circumstances of the time, so that they cannot be sold at all, or if they are obliged to be sold at a lower price than they cost, that is *over production*. He must then pay his bills out of any other funds at his disposal, or sell other property to meet them, and if he cannot do so he is ruined.

219. In times of great speculation and great fluctuations of prices, there is an exceeding danger of over production by means of Credit, especially by that abuse of it called Accommodation Paper, which we have described. A new channel of trade is opened, perhaps, and the first to take advantage of it make great profits. Multitudes of others, hearing of these great profits, rush in, all dealing on credit. The market is overstocked, and prices tumble down, and the credit created to carry on these operations cannot be redeemed. Not only are the speculators in many cases ruined, but also frequently the banks which created credit by discounting these bills.

220. The institution of Banks and Bankers, who create currency by means of their Credit, either in the form of notes or deposits, gives a great extension to the limits of Credit. But, nevertheless, the *principle* of the limit remains the same. The increased quantity of currency they can issue by means of their Credit, enables them to lower the rate of discount. These banking debts take the place of money, and serve the purposes of money for all internal transactions. When a banker has created these debts by buying commercial debts, those who are indebted to the banker must obtain a sufficiency of money, or of other bankers' notes, or of the banker's own notes, to discharge their debt. And if this be done the Credit has been sound; payment in all these

forms, as we have seen already, being absolutely equivalent. Hence we see that Credit is never excessive, no matter what its absolute quantity be, so long as it always returns into itself.

221. A banker, of course, can only maintain his credit by being always supposed to be able to cash any reasonable amount of his liabilities on demand. In order to do this he must always maintain a certain proportion between his liabilities and his cash. If, therefore, an excessive number of debts be pressed on him for sale, the same result must follow as when an over-abundant supply of any other article is offered for sale in the market. They must fall in value, that is, the rate of discount must be raised. By this means, if done in due time, over-production may often be arrested, because the difference of 1 per cent. in the rate of discount is sufficient to curb a considerable amount of enterprise. If that is not sufficient still more stringent measures must be adopted until it is effectual. But the method is infallible; by raising the rate of discount sufficiently, nearly all production might be brought to a standstill. It is the neglect of this precautionary measure during an excessive generation of Credit, which drives bullion out of the country, that has led to several Commercial Crises. But this part of the subject is fully treated of under CRISIS, COMMERCIAL, and EXCHANGES, FOREIGN.

SUCH IS THE GRAND THEORY OF CREDIT.

SECTION IV.

On the History of Ideas on the subject of Credit, and an Examination of the Opinions of Modern Economists on it.

222. In the preceding sections we have given an exposition of the Scientific Theory and the Mechanism of the system of Credit, which will be found to overthrow many of the current notions on the subject. It is one of such gigantic importance that we must now examine the opinions of several eminent writers, and see how far they agree with, and in what respects they differ from, the views in the preceding sections, and more particularly how far they differ from themselves.

223. We have shewn in § 87, that in ancient times Demosthenes clearly asserted that Credit is Capital. We are not aware that in modern times the subject excited much attention till the 17th century, when several writers, seeing the immense benefit which the Dutch derived from their bills of debt, wished to introduce them into England, but the inflexible rule of the common law that *choses in action* could not be transferred, presented for a long time an insurmountable obstacle to such a plan. Soon after the restoration, however, the extension of commerce attracted a great deal of attention to the subject of Credit, and multitudes of pamphlets were published advocating the institution of public banks. The notes which were issued by the private bankers of London showed the utility and the convenience of the invention. At last, after several attempts, the Bank of England was founded in 1694, with the express intention, as was very clearly stated by its founders, of *increasing* the quantity of the currency.

224. All these projects, however, were for the purpose of augmenting *Credit*, that is, paper currency convertible into specie, and therefore of the value of specie. But many projectors, not satisfied with the increase of the currency caused by *Credit*, began to devise schemes for creating paper money, that is, paper notes not convertible into specie, a thing of a totally different nature, though often confounded with it. Among these were Chamberlen, Asgill, Briscoe, and others, who wished to found an inconvertible paper money, based upon land. The most famous, however, of the advocates of this plan was John Law, and as it was in fact out of the discussions raised by the terrible catastrophe of the Mississippi scheme, that Modern Political Economy may almost be said to have arisen, we may confine our attention chiefly to him.

225. Most persons have no other conception of John Law than as the deviser of a scheme which produced a great financial catastrophe, somewhat similar to the South Sea bubble. The latter was a pure swindle and fraud; and, as both schemes produced a great catastrophe, about the same period, most persons jumble up the two events, and class the projectors of both enterprises under a common name.

226. This, however, is a very grievous error indeed. Law was neither a swindler nor a rogue. Even his enemies and those persons who were opposed to his system, bear ample testimony to his personal integrity and sincerity, and even after the collapse of the system, the higher ranks of the country treated him with the greatest respect. The fact is that his writings are divided into two distinct classes—those upon Banking and *Paper Credit*, and those upon *Paper Money*. His writings on Banking and Paper Credit, were originally written in French and presented to the Regent Orléans, and were never, that we know of, translated into English. His treatise on *Paper Money* was originally published in English, at Edinburgh, in 1705.

227. Nothing can be better and sounder than his writings on Banking and Paper Credit. They were by far the best exposition of the subject that had then been published, in fact they are some of the best that exist to the present day. But the theory of paper money which he adopted is a totally distinct thing, and has no connection with his doctrines of *Credit*. It would be out of place to examine his theory of money here. That is fully done under CURRENCY and LAW. But we may observe that his career was, like his writings, divided into two distinct operations. We have seen under BANKING IN FRANCE, that so long as he confined his operations to legitimate banking, nothing could be more successful. There was scarcely ever such a marvellous restoration of prosperity in so short a space of time as by the institution of Law's Bank. And well would it have been for him and the country if he had stopped there. It was only when he put into practice his theory of paper money that the mischief was produced. But this does not prove that he was a rogue; it only shews that his theory of money was erroneous. It is, nevertheless, one that has innumerable admirers at the present day, and to shew its fallacy requires a thorough knowledge of the most fundamental subtleties of Political Economy.

228. We have been obliged to say this much here as a preface to quoting anything from Law regarding *Credit*, which must be carefully distinguished, as we have said above, from his doctrines on Money. His writings on Banking and *Credit* are contained in ten *Mémoires sur les Banques*, fifteen *Lettres sur les Banques* addressed to the Regent Orléans, and some letters on the system, all in French, published in the first volume of Guillaumin's Collection of Modern Economists.

We shall now shew that Law maintained that *Credit* was equivalent to an increase of money. In the first *Mémoire*, p. 521 of the volume just mentioned, Law says:—"Les Crédits sont nécessaires et utiles; ils font les mêmes effets et le même bien dans le commerce, comme si la quantité de la monnaie était augmentée." He points out the advantage England derived from the institution of *Credit* during the war with France, and being in great difficulty from want of money—"s'est avisée d'introduire des Crédits, qui ont suppléé aux espèces, et soutenu ses manufactures, et son commerce qui, sans ce secours, auraient été ruinées par de si longues guerres qui ont causé un grand transport d'espèces, et sous lesquelles l'Angleterre aurait succombé sans les Crédits dont elle s'est bien servie. Les Crédits ont non seulement suppléé aux espèces qui étaient transportées, mais ont servi au delà, et ont augmenté ses manufactures et son commerce, même pendant la guerre." He then says:—"La Banque est un espèce de *Credit*," and speaking of the Bank of England—"mais le bien que la banque fait en augmentant la quantité de la monnaie." He shews, too, that its shares being negotiable, in many cases served the purpose of money. At p. 545, he says:—"La Banque d'Angleterre, outre ces commodités qu'elle donne aux négociants pour faciliter les paiements, produit une plus forte circulation, et fait le même effet que si la monnaie d'Angleterre était considérablement augmentée, comme je l'ai déjà remarqué." And at p. 554:—"Donc, l'introduction d'un *Credit*, dans le commerce augmentait la quantité de la monnaie réellement, et faisant le même effet que si elle était augmentée, par une plus forte circulation que ce *Credit* procure, doit diminuer le prix ou intérêt de l'argent." At p. 560:—"La circulation des billets de la banque dans les provinces ferait le même effet qui si la quantité des espèces était considérablement augmentée, et par là, soutiendrait et augmenterait l'agriculture et les manufactures."

Law also saw, of course, that these notes, &c., were of the value of money, because they were exchangeable for money—"ces billets étant supposés au moins aussi bien que l'argent puisqu'on les peut convertir en espèces à volonté."

In the first *Lettre sur les Banques*, he says,—"Si l'Espagne avait cédé les Indes aux Anglais, cette nation n'aurait pas tant profité de ce commerce qu'elle a profité de son crédit."

"Avant le mort de Charles II, roi d'Espagne, le commerce des Indes a fourni aux Anglais environ 25 millions par année en matières d'argent; de cela une partie était consommée, une partie payait une balance due alors à la France, une partie était transportée par la Compagnie des Indes Orientales; il n'en restait qu'environ 8 millions; ainsi, pour augmenter la

monnaie d'Angleterre de 400 millions, il aurait fallu 50 années d'un commerce bien réglé et sans interruption, en donnant le produit et manufactures du pays en échange de ces matières.

"Par l'introduction du crédit, l'Angleterre a augmenté sa monnaie au-delà de cette somme, sans avoir donné en échange aucune valeur en marchandise, car le crédit qui circule dans la ville de Londres seule, monte à plus que les espèces monnayées de la France et de l'Angleterre. Ainsi il ne doit pas paraître extraordinaire que la monnaie soit si abondante à Londres, les espèces ne faisant pas la cinquième partie de ce que le crédit fait.

"Le revenu de cette augmentation de la monnaie produit annuellement plus que double de ce que le commerce des Indes aurait produit, par une augmentation de l'industrie et des manufactures de ce royaume, qui ont été portées si loin qu'elles fournissent la plus grande partie de l'Europe."

229. These extracts are sufficient to show that Law knew and maintained that credit was separate and independent exchangeable property, which was cumulative property over and above specie and commodities. He never falls into that extraordinary confusion of idea of believing that Credit is the transfer of Capital. He sees, as we have said above, that Credit is to be added to the mass of other exchangeable property (§ 23). So also Melon, a contemporary writer, in his *Essai Politique sur le Commerce*, in the same volume, already mentioned, p. 757, commenting on the political arithmetic of Sir W. Petty, says—"Au calcul des hommes il faut ajouter le calcul de ce qu'ils valent par leur travail.

"Au calcul des valeurs numéraires, il faut ajouter le crédit courant du négociant, et son crédit possible."

230. That astounding confusion of ideas which prevails through so many modern writers that Credit is the transfer of something began with Turgot. When he was at College, and only 22 years old, he began to reflect on Law's system, and addressed a letter on the subject to the Abbé de Cicé, *Sur le papier suppléé à la monnaie*. (*Œuvres de Turgot. Vol. I., p. 94. Edit. Guillaumin.*) This letter contains an expression which has been the key note of a fallacy which has been sedulously propagated from that day to this, by a long series of writers both in France and in England. He says:—En un mot tout Crédit est un emprunt, et a son rapport essentiel à son remboursement." Here we see the first statement of that gross confusion of ideas on the subject of Credit, which is so prevalent. Preceding writers had always seen that Credit was a species of exchangeable property, which served the purpose of money. But Turgot makes Credit to be an operation. To say that Credit is a loan is as gross a misconception of the nature of the thing as to say that a guinea is the transfer of a book! Moreover, the word loan is ambiguous. We have fully explained the nature of this ambiguity in § 61, where we have shewn that in English there is but one word for the two Latin ones *mutuum* and *commodum*, in the distinction between which lies one of the greatest subtleties in Political Economy. An operation on Credit is always an exchange, where the property of the thing "lent" always passes to the "borrower,"

and the "lender" receives in return the right, or property, to demand back an equivalent to the thing "lent" at a future time. Turgot rightly enough says that every Credit implies a future repayment. That is true; Credit means the Right to a future Payment. And it is precisely because this Right is exchangeable for something at a future period that it has value. And it may be bought and sold like any other species of property. We shall see afterwards that J. B. Say, whose doctrines we shall have to examine, fully acknowledges this.

The Opinion of Adam Smith on the Nature of Credit.

231. The controversies about Credit, of which the germ is contained in the extract from Turgot, which we have given above, did not commence till after Adam Smith's time. He, therefore, did not discuss them. Though his doctrines on the powers of Credit are self-contradictory, as we have shewn under CURRENCY PRINCIPLE, he is perfectly consistent with himself as to the nature of Credit. He uniformly considers Credit to be independent exchangeable property, and we shall now show that he classes it under CAPITAL.

232. In the first place, we have shewn under CAPITAL, that Smith, in a passage which has been most unaccountably overlooked by nearly every writer, expressly enumerates the useful and acquired abilities of the inhabitants of a country as part of its wealth, or fixed Capital. Now as a man's Credit depends purely upon the belief in his character and abilities, it is manifestly according to the very definition, Capital to him, by means of which he can make a profit. Thus Smith says, Book 1, c. x.—"In great towns trade can be extended as stock increases, and the CREDIT of a frugal and thriving man increases much faster than his stock. His trade is extended in proportion to the amount of BOTH, and the sum or amount of his profits is in proportion to the extent of his trade, and his annual accumulation in proportion to the amount of his profits." Hence we see that Smith places Credit on exactly the same footing as stock, and as he makes a profit by it in the same way as by Stock, it is clearly capital to him as well as his Stock.

233. But we shall now shew that Smith expressly includes Credit under the term Capital, and says that it produces exactly the same effects as money.

Under the term fixed Capital he includes the abilities of the people upon which Credit depends. Under the term floating Capital he includes four sorts. The first of these he says is, "The money by means of which all the other three are circulated and distributed to their proper consumers."

In B. 2, c. ii., he says, "Money, therefore, the great wheel of circulation, the great instrument of commerce, like all other instruments of trade, though it makes a part, and a very valuable part, of the Capital, &c."

Thus we see that Smith expressly includes the wheel of circulation, or according to a name it has received since his day, the "circulating medium," as part of the Capital of the country.

He then says that every saving in the expence of collecting and supporting that part of the circulating capital, which consists of money, is an increase of the neat revenue of the country.

He says then, "The substitution of paper in the room of gold and silver money, replaces a very expensive instrument of commerce with one very much less costly, and sometimes equally convenient. Circulation comes to be carried on by a new wheel, which it costs less both to erect and to maintain than the old one."

"There are several different sorts of paper money, but the circulating notes of banks and bankers are the species which is best known, and which seem best adapted for this purpose."

Thus we see that Smith expressly includes all forms of paper credit under the term money, or circulating power, which he has already said is Capital.

After saying that if people have confidence in a banker, his notes come to have the same currency as gold and silver; because people believe that money can always be had for them, he says, "When a particular banker lends among his customers his own promissory notes to the extent, we shall suppose, of £100,000. As these notes serve all the purposes of money, his debtors pay him the same interest as if he had lent them so much money. This interest is the source of his gain. Though some of these notes are continually coming back on him for payment, part of them continue to circulate for months and years together. Though he has generally in circulation, therefore, notes to the extent of £100,000, twenty thousand in gold and silver may frequently be a sufficient provision for answering occasional demands. By this operation, therefore, £20,000 in gold and silver perform all the functions which £100,000 could otherwise have performed. The same exchanges may be made, the same quantity of consumable goods may be circulated and distributed to their proper consumers, by means of his promissory notes to the value of £100,000, as by an equal value of gold and silver money."

Thus we see that Smith says that a banker may derive exactly the same profit from the use of his Credit that he would from actual money, and therefore it is Capital to him. And he shews that it has exactly the same effects on the country as so much money, and therefore it is equally Capital to the country.

He also supposes a case in which the circulating money of a country should be £1,000,000 at any time. Different banks and bankers issued paper to an equal amount, reserving £200,000 to meet the demand for specie. "There would remain, therefore, in circulation £800,000 in gold and silver and £1,000,000 of bank-notes, or £1,800,000 of paper and money together." Thus we see that Smith classes Paper Credit as independent exchangeable property, just on the same footing as gold and silver. He then says that such an emission of paper will release a quantity of the circulating money, and enable it to be exported to purchase foreign goods, and to be invested in foreign trade, and he says:—"Whatever profit they make will be an addition to the neat revenue of their own country. It is like a new fund created for carrying on a new trade, domestic business being now transacted with paper, and the gold and silver being converted into a fund for this new trade." He says also that it may be applied to purchase an additional stock of materials, tools, and provisions, in order to main-

tain and employ an additional number of industrious people, who reproduce with a profit the value of their annual consumption. *

"When paper is substituted in the room of gold and silver money, the quantity of the materials, tools, and maintenance which the whole circulating capital can supply, may be increased by the whole value of gold and silver, which used to be employed in purchasing them. *

"When, therefore, by the substitution of paper the gold and silver, necessary for circulation, is reduced to, perhaps, a fifth part of the former quantity, if the value only of the greater part of the other four-fifths be added to the funds which are destined for the maintenance of industry, it must make a very considerable addition to the quantity of their industry, and consequently to the value of the annual produce of land and labour."

234. In speaking of bankers he says:—"It is chiefly by discounting Bills of Exchange, that is, by advancing *money* upon them before they are due, that the great part of banks and bankers issue their *promissory notes*. * The banker who advances to the merchants, whose bill he discounts, not gold and silver, but his own promissory notes, has the advantage of being able to discount to a greater amount, by the whole value of his promissory notes, which he finds by experience are commonly in circulation. He is thereby enabled to make his clear gain of interest on so much a larger sum. *

"The banks, when their customers apply to them for *money*, generally advance it to them in their own *promissory notes*. These the merchants pay away to the manufacturers for goods, the manufacturers to the farmers for materials and provisions, the farmers to their landlords for rent, the landlords repay them to the merchants for the conveniences and luxuries with which they supply them, and the merchants again return them to the bank in order to balance their cash accounts, or to replace what they may have borrowed from them; and thus almost the whole money business of the country is transacted by means of them."

235. Thus Smith clearly places Paper Credit on exactly the same footing as Money. He shewed that traders made a profit by their credit, and in the last-mentioned passages he shews how bankers make a profit by their credit, and how in process of time the greater part of the circulation of the country is carried on by Credit. In B. II., c. iv., he says:—"The stock which is lent at interest is always considered as a CAPITAL by the lender." Then a little after—"Almost all loans at interest are made in money, either of paper or of gold and silver." * "The quantity of *stock*, therefore, or, as it is commonly expressed, of *money* which can be lent at interest in any country, is not regulated by the value of the *money*, whether *paper* or coin, &c."

236. Thus Smith expressly classes Paper Credit under the term Capital, and therefore it must be *productive*. It has puzzled many persons, however, to conceive how Credit can be *Productive*. This, of course, manifestly turns on the meaning of *Productive*. We have fully shewn under *Production* the extension of meaning which Smith gave to *productive labour*, beyond that in which it was used by the French Economists. He says that there are four ways in which Capital may

be employed productively (B. II., c. v.)—1st, in procuring rude produce; 2ndly, in manufacturing it; 3rdly, in transporting it from place to place; 4thly, in dividing it into small parcels to suit the convenience of customers. Hence we see that he says Capital may be *productively* employed in buying and selling. Now, of course, it will be at once seen that Credit is employed in buying and selling. Smith says that the labour of wholesale and retail dealers is productive because it adds to the value of the commodities they deal in. But persons can buy and sell with Credit equally well as with money. Hence, their labour is just as much *productive* in the one case as in the other. And here we see at last the root of the difficulty which many persons have in conceiving that Credit is productive capital, because they evidently mean by production an increase of *quantity*. But the fact is that *circulation* is one species of production, and hence the circulating power is Capital. Now the circulating medium, as every one knows, is Money and Credit. As Smith says (B. III., c. 1.)—"The great commerce of every civilized society is that carried on between the inhabitants of the town and those of the country. It consists in the exchange of rude for manufactured produce, either immediately, or by the intervention of money, or of *some sort of paper* which represents money."

The extracts which we have laid before our readers are quite sufficient to shew that Adam Smith never committed the extraordinary error of supposing that Credit is the transfer of Capital, as is so common at present. It is quite evident that he always knew that Credit is independent, exchangeable property, and that it is **PRODUCTIVE CAPITAL**.

On the Opinion of Jean Baptiste Say respecting the Nature of Credit.

237. We now have to examine the opinions of J. B. Say respecting Credit, as it is he who, following up the erroneous notion of Turgot, invented the phrase which so many unthinking writers have echoed from that day to this, that those who consider Credit to be Capital, maintain that the same thing can be in two places at once!

238. Credit, as we have shewn in the preceding sections of this treatise, is a species of incorporeal property, and was always well understood to be so, until Turgot originated the erroneous notion that it was a loan, or the *transfer* of something. The question of Credit, therefore, involves that of the admission of incorporeal property into Political Economy.

239. It is very commonly stated that J. B. Say was the first Economist to introduce immaterial products into Political Economy. We have already shewn that this is erroneous. We have, besides, shewn under CAPITAL, that Say has put forth the most self-contradictory opinions on the subject. We have shewn that in one place he says that immaterial products are not capital, and that the talents and abilities of the people are not part of the wealth of the country; and that in another place he says that they are to be counted as wealth. That in one place he maintains that all transferable capital is composed of *material* products, having an *intrinsic* value, and that it is not possible to amass and transmit to another person any but values incorporated in material objects,

and yet in a note to this very passage he says that there are capitals not incorporated in any material things, such as the *clientelle* of a notary, or of a commercial enterprise. And in the same volume he enumerates other capitals not incorporated in material objects, such as copyright, the goodwill of a business, which he says may be bought and sold.

240. Economists seem to be the chartered libertines of science. Of all the sciences it seems to be the only one in which writers are permitted to utter the most contradictory opinions, and yet to be considered as authorities. We have seen Say's self-contradiction on the subject of Capital; we shall now find that he is equally self-contradictory on the subject of Credit.

In the first place he has fallen into that confusion of ideas about value, which has ruined so much of modern economics. He repeatedly speaks of *INTRINSIC* Value, and of Value being something inherent and innate in a matter, and yet he says, *Traité d'Economie Politique*, p. 57—"La valeur que les hommes attachent aux choses."
* * * Toujours est il vrai que si les hommes attachent de la valeur à une chose, &c.;" and in a note to this passage he says—"Ce n'est pas ici le lieu d'examiner si la valeur que les hommes attachent à une chose est proportionnée ou non à son utilité réelle. La juste appréciation des choses dépend du jugement, des lumières, des habitudes, des préjugés de ceux qui les apprécient. Une saine morale, des notions précises sur leurs véritables intérêts, conduisent les hommes à une juste appréciation des vrais biens." Now what can be more self-contradictory than the notion that value is something inherent in the substances themselves, and then to say that it entirely depends on the judgment, the knowledge, the habits, and the prejudices of men?

241. Having thus shewn his self-contradictions on the conception of Value, we shall now come to his conception of Credit. In B. I., c. 1., of his *Traité*, after speaking of things of value, such as the earth, metals, money, corn, stuffs, &c., he says:—"Si l'on donne aussi le nom de *richesses* à des contrats de rentes, à des *effets de commerce*, il est évident que c'est parce qu'ils renferment un engagement pris de livrer des choses qui ont une valeur par elles mêmes."

And in his *Cours Complet d'Economie Politique*, Part I., ch. 1, Vol. I., p. 67, he says:—"La possession exclusive qui, au milieu d'une nombreuse réunion d'hommes, distingue nettement la propriété d'une autre personne, fait que dans l'usage commun, cette sorte de biens est la seule à laquelle on donne le nom de *Richesse*."
* * * C'est là que viennent se ranger non-seulement les choses capables de satisfaire directement les besoins de l'homme, tel que l'ont fait la nature et la société, mais les choses qui ne peuvent les satisfaire qu'indirectement en fournissant des moyens de se procurer ce qui sert immédiatement, comme l'argent, les **TITRES DE CREANCES**, les contrats de rente, &c."

Thus we see that Say expressly enumerates **DEBTS, or CREDIT, as WEALTH**.

242. Moreover, in B. I., ch. 30, of the *Traité*, he says:—"Une billet à ordre, une lettre de change, sont des obligations contractées de payer, ou de faire payer, une somme soit dans un autre temps, soit dans un autre lieu."

"Le droit attaché à ce mandat (quoique sa valeur ne soit pas exigible à l'instant et au lieu où l'on est), lui donne néanmoins une VALEUR ACTUELLE, plus ou moins forte. Ainsi un effet de commerce de cent francs, payable à Paris dans deux mois, se négociera, ou, si l'on veut, se vendra pour le prix de 99 francs; une lettre de change de pareille somme, payable à Marseille au bout du même espace de temps, vaudra actuellement à Paris peut-être 98 francs.

"Dès-lors qu'une lettre de change ou un billet, en vertu de leur valeur future, ont une VALEUR ACTUELLE, ils peuvent être employés en guise de monnaie dans toute espèce d'achats, aussi la plupart des grandes transactions du commerce, se règlent-elles avec des lettres de change."

Thus we see in this passage that Say maintains exactly the same doctrine as we have set forth in the preceding sections, that an instrument of Credit is a *present right to a future payment*, and that it is separate and independent exchangeable property. That is, that CREDIT, or DEBTS, are WEALTH.

243. We may also quote another passage from his *Cours (Part III., Division III., ch. 27, p. 461, Vol. I.)*:—"Il y a néanmoins une observation importante à faire relativement aux signes représentatifs des monnaies. C'est qu'ils sont capables de rendre un service exactement pareil au service que peuvent rendre les monnaies qu'ils représentent. Si quelqu'un souscrivait un engagement par lequel il s'obligerait à livrer, à une époque désignée, un manteau fait de telle ou telle façon, cette promesse, quoiqu'elle fût en quelque sorte un signe, un gage de la possession du manteau, ne saurait en tenir lieu; car une feuille de papier ne garantit pas du froid, comme fait un manteau; tandis que les signes qui représentent la monnaie, peuvent la remplacer complètement, et rendre tous les services que l'on peut attendre d'elle. En effet, les qualités qui font qu'un sac d'argent nous sert dans nos échanges, peuvent toutes se trouver dans une billet. Ces qualités, vous vous le rappelez, consistent :

"D'abord dans la VALEUR qu'il a. On peut donner à un billet exactement la même valeur qu'à une somme d'argent, en donnant au porteur le droit de toucher la somme, de manière à lui ôter toute inquiétude sur ce remboursement; c'est ainsi qu'un billet de banque peut circuler dix ans en conservant une valeur de mille francs sans qu'il soit remboursé, seulement parce qu'on est convaincu qu'il le sera du moment que le porteur le voudra. * * *

"Vous voyez, Messieurs, que toutes les qualités utiles de la monnaie peuvent se retrouver dans un signe représentatif, qui n'a aucune valeur par lui-même, et tire de la monnaie même, toute celle que l'on veut bien lui accorder."

Hence we see that these passages assert as clearly and explicitly as it is possible that language can do, that Credit may be in all respects equivalent to money, and therefore that it may be CAPITAL, just as money may.

244. Having thus laid before our readers these explicit declarations of Say, that Credit is Wealth, we will now place before them the passage which has been the foundation of such an immense amount of misconception. He says, *Traité*, B II., c. 8:—"On s'imagine quelquefois que le Crédit multiplie

les capitaux. Cette erreur qui se trouve fréquemment reproduite dans une foule d'ouvrages, dont quelques uns sont même écrits *ex professo* sur l'économie politique, suppose une ignorance absolue de la nature et des fonctions des capitaux. *Un capital est toujours une valeur très-réelle, et fixée dans une matière; car les produits immatériels ne sont pas susceptibles d'accumulation. Or un produit matériel ne saurait être en deux endroits à la fois, et servir à deux personnes en même temps.* Les constructions, les machines, les provisions, les marchandises qui composent mon capital, peuvent en totalité être des valeurs que j'ai empruntées; dans ce cas, j'exerce une industrie avec un capital qui ne m'appartient pas, et que je loue; mais, à coup sûr, ce capital que j'emploie n'est pas employé par un autre. Celui qui me le prête s'est interdit le pouvoir de le faire travailler ailleurs. Cent personnes peuvent mériter la même confiance que moi; mais ce Crédit, cette confiance méritée ne multiplie pas la somme des capitaux disponibles; elle fait seulement qu'on garde moins de capitaux sans les faire valoir."

He also says in his *Cours (Part I., c. 9)*:—"Le manufacturier qui achète à Crédit des matières premières, emprunte à son vendeur la valeur de ces marchandises pour tout le temps où ce dernier lui fait Crédit; et cette valeur qu'on lui prête, lui est fournie en marchandises qui sont des valeurs matérielles.

"Or, si l'on ne peut prêter et emprunter une portion de Capital qu'en objets effectifs et matériels, que devient cette maxime que le Crédit multiplie les capitaux? Mon Crédit peut bien faire que je dispose d'une valeur matérielle qu'un capitaliste a mise en réserve; mais s'il me la prête, il faut qu'il demeure privé; il ne peut pas en même temps la prêter à une autre personne; la même valeur ne saurait servir deux fois en même temps; l'entrepreneur qui emploie cette valeur, qui la consomme pour accomplir son opération productive, empêche qu'aucun autre entrepreneur puisse l'employer dans la sienne."

245. We have now to remark upon the extraordinary self-contradictions of Say. He tells us expressly that instruments of Credit have an actual value in respect of their future payment, and that they may be made to have precisely the same value as money itself, and may be employed in purchases in all respects exactly in the same manner that money may. Now this, of course, by implication, admits that they may be Capital, because money is only used as Capital, by being employed in buying and selling.

246. Having laid this down as clearly as can be, we have now to see how Say proceeds to contradict himself. He says, in the passages last quoted, that Capital is always a very real value fixed in a matter! Why he himself has told us that there is incorporeal Capital *not* fixed in any matter whatever, such as Copyright, the goodwill of a business, &c., &c. He then says that immaterial products are not capable of accumulation! What! Cannot a man be possessed of £100,000 of Funded Property? And of the Copyrights of Books, &c., and of a number of Bills of Exchange? He then says that a material product cannot be in two places at once. But who said it could—except Sir Boyle Roche, the famous Hibernian,—and even he limited this power to birds. Neither, however, can an immaterial

product be in two places at once, that we are aware of; so that it makes not much difference as to its capacity of being in two places at once, whether the product is material or immaterial. He says that the material merchandise *lent* cannot serve two persons at once. No one said it could; but that has nothing to do with the question. Because it is not the merchandize which is the Credit, but the *Debt created in exchange for the merchandize*, which is a valuable property in itself, and may either be used to buy other articles, and therefore is productive Capital, or else it may be discounted by a banker, and the proceeds used in the same manner.

247. But Say himself calls these instruments of Credit, Capital. In his *Cours (Partie III., ch. xviii.)* he says:—"Tout particulier peut souscrire un billet ordinaire, et le donner en paiement d'une marchandise, pourvu que le vendeur consente à le recevoir comme si c'était de l'argent. Ce vendeur à son tour, s'il est acheteur d'une autre marchandise, peut donner le même billet en paiement. Le second acquéreur peut le passer à un troisième dans le même but. Voilà un engagement qui circule; il sert à qui veut vendre; il sert à qui veut acheter; il remplit l'office d'une somme de monnaie."

"La valeur d'une signe dépend de la valeur de la chose signifiée; mais pour que cette valeur soit précisément aussi grande que celle de la chose dont elle est la gage, il faut non-seulement que le paiement du billet soit indubitable, mais qu'il puisse être exigé à l'instant."

"Si les billets de confiance peuvent remplacer complètement la monnaie métallique, il est évident qu'une banque de circulation augmente véritablement la somme des richesses nationales; car dans ce cas la richesse métallique devenant superflue comme agent de circulation, et conservant néanmoins une valeur propre, devient une valeur disponible, et peut servir à d'autres usages. Mais comment s'opère cette substitution? Quelles en sont les bornes? Quelles classes de la société font leur profit de l'intérêt des *nouveaux fonds ajoutés aux capitaux* de la nation?"

"A mesure qu'une banque met ses billets dans la circulation et que le public consent à les recevoir sur le même pied que la monnaie métallique, le nombre des unités monétaires augmente."

* Les personnes qui font la spéculation d'envoyer des monnaies métalliques dans l'étranger, après les y avoir vendues, ou les avoir employées à des achats de marchandises, ont soin de se faire adresser l'équivalent de leurs achats. Ce sont là des richesses réelles des valeurs *ajoutées* à nos capitaux, des valeurs sur lesquelles peut s'exercer notre industrie, et que notre industrie rétablit à mesure qu'elle les consomme, pour fournir des avances à une production nouvelle. *Nous avons des capitaux de plus*, et la valeur capitale qui servait auparavant aux besoins de notre circulation, n'est pas moindre, puisqu'elle est remplacée chez nous par un signe représentatif qui en tient lieu parfaitement.

"Il ne faut pas pourtant pas qu'on s' imagine que la valeur retirée de la somme des monnaies et ajoutée à la somme des capitaux-marchandises, égale la somme des billets en émission. Ceux-ci ne représentent la monnaie qu'autant qu'on est toujours en mesure de les payer à bureau ouvert; et pour cela, la banque est obligée de garder dans

ses coffres, et par conséquent de retirer de la circulation une somme quelconque de numéraire. Si, par supposition, elle met dans la circulation pour cent millions de billets, elle retirera peut-être 40 millions d'espèces, qu'elle mettra en réserve pour faire face aux remboursements qui pourraient lui être éventuellement demandés. Or, si elle ajoute à la quantité de monnaie en circulation, 100 millions, et si elle en retire 40 de la circulation, c'est comme si elle en ajoutait seulement 60.

"Nous devons à présent désirer de savoir quelle classe de la société jouit de l'usage de ce NOUVEAU CAPITAL."

Say then goes on to explain how this *new capital* is employed, and who reaps the profit of it.

Thus, J. B. Say, who is supposed to be the Economist *par excellence*, who has proved that those writers who maintain that Credit is Capital, are such poor muddle-headed creatures as to think that the same thing can be in two places at once, himself expressly declares that CREDIT IS CAPITAL!!!

On the Opinion of Mr. J. S. Mill on the subject of Credit.

248. Turgot, we have seen above, was the writer who started the erroneous notion that Credit was the transfer of something, and J. B. Say extended this error by saying that credit could not multiply capital, because the same thing could not be in two places at once. These two sentences have been repeated by a multitude of unthinking writers in France and England, from that day to this. The number of writers who have reiterated these absurdities is so great that we cannot afford room to examine them all. We have only room to examine what Mr. J. S. Mill has said, and to see whether he is more consistent with himself than Say.

We have shown under WEALTH, and MILL, J. S., the unsteady conception which Mr. Mill has of the definition of WEALTH. At p. 8, Vol. I., he says—"Everything forms, therefore, a part of Wealth, which has a power of purchasing." And—"Money being the instrument of an important public and private purpose, is rightly regarded as Wealth; but everything else which serves any human purpose, and which nature does not afford gratuitously, is Wealth also." Here, therefore, are propositions of the widest generality, which assert that whatever can be bought and sold, no matter what its nature be, is Wealth. Consequently if Bank Notes, Bills of Exchange, &c.—or Credit—can be bought and sold, they are Wealth, by the very force of the definition.

249. Let us now turn to Mr. Mill's definition of Capital. He tells us, B. I., c. iv., that money may be productive capital by being exchanged for other things, and that ANYTHING which is susceptible of being exchanged for other things is capable of contributing to production in the same degree. That is to say, without inquiring here what is meant by production, he says that money may be productive capital by being used in a certain way, and that anything which may be used in a similar way may be productive Capital as much as money. Now it is perfectly well known that Bank Notes, Bills of

Exchange, &c.—or Credit—may be, and, are exchanged for other things just as money is. Hence this sentence expressly implies that Credit may be productive Capital just as much as money.

250. Thus we see that Mr. Mill has already by implication admitted that Credit may be Capital. And this doctrine we shall find he still more explicitly states when he speaks of Credit itself. Chap xi., B. III., is headed, "Of Credit, as a substitute for money." Now we observe that if one thing is to be a substitute for another, it must be of the same general nature. Not so high, or excellent in degree, perhaps, but still it must be of the same kind. Things of totally different natures cannot be substituted for each other. Thus, for instance, if a man cannot get xxx ale he may have to put up with swipes as a substitute. But a pair of shoes could never be a *substitute* for a glass of ale. If, therefore, Credit is to be a substitute for money, it must be of the same general nature as money. Now money, as every one knows, is separate and independent exchangeable property, and consequently Credit must be so also. Money, if used in a certain way, is Capital; Credit must also be capable of being used as Capital as well. If money, therefore, is capable of being productive Capital, Credit must be so likewise.

251. Passing over the beginning of this chapter, to which we shall revert, Mr. Mill says in § 3,—"For Credit, though it is not *productive* power, is *purchasing* power." Now here is a striking contradiction already to what he had said before. For in B. I., as we have already shewn, he says that anything which has power of purchase is Wealth. Here he admits that Credit is purchasing power, and therefore, by his own shewing, if it is purchasing power, it is Wealth; and if it is Wealth, it may, by his own admission, be productive Capital.

252. In § 5, he says, that a form "in which credit is employed as a substitute for currency is that of promissory notes." In § 6, he says, another mode "of making credit answer the purposes of money, by which, when carried far enough, money may be very completely superseded, consists in making payments by cheques." Here we see that he expressly calls the Promissory Note and the Cheque, the Credit.

253. In the next chapter, xii., we shall see that he expressly allows that these instruments of Credit are independent exchangeable property, and valuable things. He says, § 1—"An *order*, or *note of hand*, or *bill payable at sight*, for an ounce of gold, while the credit is unimpaired, is worth neither more nor less than the gold itself;" and, "But we have now found that there are other things, such as bank notes, bills of exchange, and cheques, which circulate as money, and perform ALL the functions of it." Now here is an explicit declaration that Credit performs ALL the functions of money, and therefore as one of the functions of money is to be *productive Capital*, it follows that Credit may also be productive Capital.

254. In § 2 of the same chapter, he says, that a man "may make purchases with money which he only expects to have, or even only pretends to expect. He may obtain goods in return for his acceptance payable at a future time, or on his note of hand, or on a simple book credit, that is, on a mere promise to pay. All these purchases have exactly the same effect on price, as if they

were made with ready money. The amount of purchasing power which a person can exercise, is composed of all the money in his possession, and due to him, AND OF ALL HIS CREDIT." "He creates a demand for the article to the full amount of his money AND CREDIT *taken together*, and raises the price proportionably to both." In § 3, he says—"The inclination of the mercantile public to increase their demand for commodities by making use of all or much of their credit as a purchasing power." In § 4—"The banker's credit with the public at large, coined into notes, as bullion is coined into pieces of money to make it portable and divisible, is *so much purchasing power* ~~SUPERADDED~~, in the hands of every successive holder, to that which he may derive from his own credit. * * Credit, in short, has exactly the same purchasing power with money; and as money tells upon prices not simply in proportion to its amount, but to its amount multiplied by the number of times it changes hands, so also does credit; and credit transferable from hand to hand is in that proportion more potent than credit which only performs one purchase."

255. In § 6, he says—"Since, then, credit in the form of bank notes is a more potent instrument for raising prices than book credits—* * If we consider the proportion which the utmost increase of bank notes in a period of speculation bears, I do not say to the whole mass of credit in the country, but to the bills of exchange alone, the average amount of bills in existence at any one time is supposed considerably to exceed a hundred millions sterling. The Bank Note circulation of Great Britain and Ireland is less than thirty-five millions, and the increase in speculative periods at most two or three." And as a note to this passage, Mr. Mill gives a table of the bills supposed to be created in several years, the last of which is 1839, when the bills supposed to be created amounted to £528,493,842. In ch. xiii, he says—"After experience had shewn that pieces of paper of no intrinsic value, by merely bearing upon them the written profession of being equivalent to a certain number of francs, dollars, or pounds, could be made to circulate as such, and to produce all the benefit to the issuers which could have been produced by the coins which they purported to represent—"

256. Now, from these extracts from Mr. Mill's work, our readers will clearly perceive that he expressly asserts, as positively as it is possible that language can do, that Credit is independent, exchangeable property like any other. That it is cumulative property to money and commodities, and that it may be dealt with precisely in the same manner as money, and may produce all the effects of money. Now, as this Credit is nothing but circulating debts, it follows clearly from Mr. Mill's own admission, that DEBTS are WEALTH. All this is in exact accordance with the doctrines laid down in the preceding sections of this treatise.

257. In B. III., chap. xxii, he is equally explicit—"The same effects which would thus arise from the discovery of a treasure accompany the process by which bank notes, or any of the other substitutes for money, take the place of the precious metals."—"The value saved to the community by thus dispensing with metallic money, is a clear gain to those who provide the substitute.

They have the use of 20 millions of circulating medium, which have cost them only the expense of an engraver's plate. If they employ this accession to their fortunes as **PRODUCTIVE CAPITAL**, the produce of the country is increased and the community benefited as much as by any other **CAPITAL** of equal amount. * * When paper currency is supplied, as in our own country, by bankers and banking companies, the amount is almost wholly turned into **PRODUCTIVE CAPITAL**. * * A banker's profession being that of a money lender, his issue of **NOTES** is a simple extension of his ordinary occupation. He lends the amount to farmers, manufacturers, or dealers, who employ it in their several businesses. So employed, it yields, like any other **CAPITAL**, wages of labor, and profits of stock. The profit is shared between the banker, who receives interest, and a succession of borrowers, mostly for short periods, who, after paying the interest, gain a profit in addition, or a convenience equivalent to profit. The **CAPITAL** itself in the long run becomes entirely wages, and when replaced by the sale of the produce becomes wages again; thus affording a perpetual fund of the value of 20 millions for the maintenance of productive labor, and increasing the annual produce of the country by all that can be produced through means of a **CAPITAL** of that value."

258. Thus our readers will perceive from the former extracts that we laid before them, that Mr. Mill expressly stated that Credit was independent exchangeable property, whether embodied in the forms of Notes, Bills, Bank debts, or any other form, which was capable of performing all the functions of money, and therefore by implication capable of being employed as capital. But in the last preceding extracts he expressly calls bank notes—which are Credit—**PRODUCTIVE CAPITAL**.

259. We think we have shewn our readers as clearly as it can be done, that Mr. Mill asserts that Credit is Capital. And yet will they believe that he not only denies that Credit is Capital, but sneers at the imbecility of those who think it is!

In B. III., chap. xix which we have already quoted from, the heading of the chapter is, as we said, "Of Credit, as a substitute for money," which clearly affirms that Credit is exchangeable property like money; he says,—"The functions of Credit have been a subject of as much misunderstanding, and as much confusion of ideas, as any single topic in Political Economy."

"As a specimen of the confused notions entertained respecting the nature of Credit, we may advert to the exaggerated language so often used respecting its national importance. Credit has a great, but not as many people seem to suppose, a magical power; it cannot make something out of nothing [Who said it could?] *How often is an extension of Credit talked of as equivalent to a creation of Capital, or as if Credit actually were capital!!!* [Why! Who has said more distinctly than Mr. Mill himself that Credit is Capital? The very object of the whole of the preceding extracts is to shew that Credit is Capital!] It seems strange that there should be any need to point out that *credit being only the permission to use the capital of another person!!* the means of production cannot be increased by it, but only *transferred*. If the borrower's means

of production, and of employing labor are *increased* by the credit given him, the lender's are as much *diminished*. The same sum cannot be used as capital both by the owner, and also by the person to whom it is lent, it cannot supply its full value as wages, tools, and materials, to two sets of laborers at once. It is true that the Capital which A has borrowed from B, and makes use of in his business, still forms part of the wealth of B for other purposes; he can enter into engagements in reliance on it, and can even borrow, when needful, an equivalent sum on the security of it; so that to a superficial eye it might seem as if both B and A had the use of it at once. But the smallest consideration will shew that when B has parted with his capital to A, the use of it as capital rests with A alone, and that B has no other service from it than in so far as his ultimate claim upon it serves him to obtain another capital from a third person C. All capital (not his own) of which any person has really the use, is and must be, so much subtracted from some one else.

"But though Credit is never anything more than a *TRANSFER of Capital from hand to hand*."

260. Our readers cannot fail to see the astonishing confusion of ideas on the subject of Credit in the above extracts. In the first set Mr. Mill sees clearly that Credit is the *Promise to pay*, which he over and over again says is independent exchangeable property, of the value of money, which may be used in all respects like money and perform all its functions. And therefore it may be Capital as well as money.

Mr. Mill says that the Capital (*i. e.*, the goods) which A has sold on credit to B, are so much subtracted from his property, and cannot be used by him as well as by B. But he wholly forgets that in exchange for those goods, A receives B's "promise to pay," which is a debt, and in fact is the credit. And this debt is exchangeable property, with which he can either purchase new goods to replace those he has sold to B, or he can sell it to his banker, and receive a bank credit, with which he can purchase fresh goods, just the same as he could with money.

In the second extract Mr. Mill has changed his conception of Credit from being a *Promise to pay*, or a Debt, to its being the *Transfer of Capital!!*

Now we ask—Is a Bank Note the *transfer* of a commodity? Is a guinea the sale of a book? Is a piece of independent property the transfer of something else? Is a table the *transfer* of a chair? Is an independent quantity of any sort whatever an *operation*?

Mr. Mill informs us that Credit cannot make something out of nothing. Who said it could? Can a guinea make something out of nothing? It is not Credit that makes something out of nothing; but it is Credit itself which is a valuable property, which is created out of nothing by the consent of the wills of persons, and which by the reiterated acknowledgments of Say and Mill is capable of performing all the functions of money. Now money becomes Capital by their own admission, by being exchanged for other things, or by circulating other things. Credit may be Capital in precisely the same way.

261. Moreover, we see how completely Mr. Mill is in error when he says that Credit is never anything more than the transfer of Capital. It is

wholly untrue that Credit is always created in exchange for commodities. As we have shewn under *BANK*, all profitable banking business consists in buying debts by creating other debts. That is, Credit is created to purchase Credit.

After this exposition our readers will perhaps think that Mr. Mill is not exactly the person to sneer at others for their confused notions about Credit, though his own work is a striking example of the misunderstanding and confusion of ideas which he says prevails upon the subject. And many may wonder, perhaps, at a logician, who is unable to perceive the difference between an independent quantity and a sale of goods.

262. Having thus demonstrated the confusion of ideas of J. B. Say and Mr. Mill on the subject of Credit, it is scarcely worth while to quote from other writers who have fallen into exactly the same confusion. We have seen in § 92, 93, 94, that Bastiat, Mr. McCulloch, and Mr. Gilbart have all declared Credit to be productive capital. But in other places these writers have all denied that Credit is Capital. Bastiat, in his *Ce qu'on voit, et ce qu'on ne voit pas*; § ix., *Credit*; Mr. McCulloch in his *Commercial Dictionary*, *Art. Credit*; and Mr. Gilbart in his *Logic of Banking*, p. 278, all deny that Credit is Capital, the two former going in the same fallacy as that of Say and Mr. Mill conceiving Credit to be an *operation*.

On the Opinion of M. Cieszkowski on the Nature of Credit.

263. We have now to notice a conception of Credit which was, we believe, started by Count Cieszkowski in his treatise, *Du Crédit et de la Circulation* (CIESZKOWSKI), which is founded on a misconception of the distinct nature of Bills of Lading, Dock Warrants and Bank Notes, Bills of Exchange, and, which is fully explained in § 4 of this article. Count Cieszkowski, seeing that Bills of Lading and Bills of Exchange both circulate in commerce by indorsement, has drawn the false conclusion that they are both of the same nature, and defines credit to be the transformation of fixed capital into circulating capital.

264. The fallacy of this doctrine is so instantly apparent to any one having the slightest knowledge of law and commerce, that it would be scarcely worth while to notice it, only that it has obtained acceptance, in a moment of oblivion, from otherwise excellent Economists, and is thus calculated to lead to serious consequences; for it is, in fact, no other than a revival of Lawism. Thus M. Joseph Garnier, in his *Elémens de l'Economie Politique*, c. xix., treating of Credit, says, that there are three definitions of it. *First*, that Credit is the power of borrowing; *secondly*, that it is an anticipation of the future. Both of these definitions he rejects, and then he quotes as a third definition, "*Le Crédit est la transformation des capitaux fixés et engagés en capitaux circulants ou dégages.*"

"C'est la définition que propose M. Cieszkowski dans son remarquable livre sur la circulation et le crédit, que l'on comprendra bien en se reportant à la division qu'Adam Smith a faite des capitaux, et qui nous semble heureusement formulée. Elle traduit bien le rôle des institutions du crédit; elle comprend, complète et rectifie les notions que laissent dans l'esprit les deux

autres définitions qui ont souvent conduit à des conséquences fausses et dangereuses."

265. After quoting some passages from MM. Cieszkowski and Chevalier, regarding the effects of Credit, M. Garnier proceeds—"Mais il s'en faut qu'en constatant les avantages et les effets du crédit on se soit toujours tenu en dehors de l'illusion. De ce que le crédit met en circulation des valeurs fixées, engagées; de ce qu'il fait passer entre les mains des travailleurs, qui les rendent productifs des capitaux restant oisifs et infructueux entre les mains de leurs possesseurs, on a été conduit à cette proposition féconde en abus, si on la prend au pied de la lettre que *le crédit multiplie les capitaux*. Il y a bien une chose que le crédit multiplie, c'est l'action, c'est la force, c'est la fécondité du capital, qui d'abord engagé ou oisif, prend les caractères et les fonctions du capital circulant; devient, dans ce dernier cas, positif de neutre qu'il était, et, dans le premier cas, acquiert une action de plus, l'action du capital roulant qu'il cumule avec celle du capital engagé. Mais cette transformation en améliorant l'instrument, n'en a fait ni deux ou trois instruments; en un mot, elle n'a multiplié le capital. Quand un emprunteur jouit de ce qu'il n'avait pas le prêteur en est privé; quand un escompte est effectué, il n'y a que les rôles qui sont changés; celui qui avait l'effet de commerce l'a donné contre des espèces; celui qui avait des espèces les a données contre des espèces; celui qui avait des espèces les a données contre l'effet. Il peut se faire que celui-ci tire un meilleur parti de l'effet, et celui-là un meilleur parti des espèces; mais en définitive, il n'y a rien là qui ressemble à la multiplication dans le sens littéral du mot.

"En disant que le crédit multiplie les capitaux, on fait d'abord une figure de rhétorique. Cette figure est ensuite prise au pied de la lettre, et on est conduit à penser qu'en créant des signes de valeurs, des engagements, des papiers de commerce, on crée aussi les valeurs réelles correspondantes, au lieu de voir que ces dernières ne sont détenues en échange que par une véritable tromperie, on pense qu'en engageant un avenir incertain on crée un capital futur, au lieu de voir que ce capital n'est encore qu'une espérance ou une illusion."

266. We see in this passage the repetition of a phrase originated by J. B. Say. He exclaims against the fallacy that credit *multiplies* capital. But no one says that credit *multiplies* capital. Credit itself is capital. Every one allows that money may be capital. No one says that money *multiplies* capital. All that is said is, that money being used in a certain way is capital. Money is used to promote circulation in commerce; credit is used precisely in the same way. M. Garnier himself admits that credit *multiplies* movement. That is all that money does. Besides, M. Garnier himself, while protesting against the doctrine that credit *multiplies* capital, goes as near saying so as it is possible to do. For speaking of banks of issue he says "Les banques de dépôt ne pouvaient opérer que sur une masse de certificats ou de billets égale au montant des valeurs déposées, tandis que les banques de circulation peuvent émettre de billets pour une valeur double, triple, et quadruple, &c., du montant espèces qui composent leur encaisse. Ainsi une banque de circulation bénéficie les escomptes sur les billets et les lettres

de change du commerce comme si elle avait un *capital triple et quadruple*." Thus we see that M. Garnier says that the power of issuing notes, which are Credit, is just the same as if the banker's capital were tripled or quadrupled. Surely that is very like saying that Credit multiplies capital, at all events, it is a clear acknowledgment that Credit is Capital.

267. M. Garnier then describes the Docks and Dock Warrants, which are transferable by endorsement, and he says—"Par ce procédé, simple et fécond, les marchandises sont échangées avec la même facilité que les effets de commerce; un capital immense est mobilisé, en même temps que les frais de manutention, d'administration et de commerce sont réduits pour la plus grande commodité des négociants et au grand avantage du consommateur."

"On voit que le warrant est aux marchandises déposées dans les docks ce que les certificats de dépôt furent, dans l'origine, aux monnaies confis aux Banques de dépôt."

Here we have the root of this specious fallacy. The Bank certificates issued by the early Banks of Deposit were similar to Dock Warrants in this respect, that they were not multiplied beyond the amount of the bullion deposited. But they differed in this that they were not specifically appropriated to any particular quantity of bullion. This distinction, which would not be of much practical importance so long as the method of doing business by the early Banks of Deposit was adhered to, becomes of vital importance when Banks began to discount bills by their own notes, or granting credits, and is in fact at the root of the currency question. The fundamental difference between Dock Warehouses and Banks is that in the former, the goods deposited do not belong to the Warehouseman, and he cannot make a profit by using them. The money deposited by a banker belongs to him, and he may trade with it and make a profit of it. Hence the promise to pay, or, his debt, is independent of any particular sum of money, and by the principle we laid down at the commencement of this article, that everything which circulates separately is separate property, and an Economic Quantity, both the money deposited with the banker and his promise to pay it may circulate independently as separate property. The fundamental distinction between the two classes of paper documents is, that Dock Warrants are always bound to, and mere titles to certain goods; instruments of Credit are always severed from money.

The only real difficulty which embarrasses writers, not familiar with Law and Commerce, is in conceiving and holding fast the conception that a debt is an article of property. When M. Garnier says that people are apt to think that when they create engagements or promises to pay they are creating the real corresponding values, we can only say that they must be very loose thinkers indeed who think that. We do not suppose that many would think, when they gave their promise to pay, that they were thereby creating the money to pay it with. The whole doctrine of Credit being Capital is contained in this, that any independent, exchangeable quantity whatever may be used as Capital. Credit or a debt, &c., is exchangeable property, and, in fact, under different forms of Bank Notes, Bills, Book debts, is exchanged for other

things in commerce just like money, and is, in fact, a substitute for money, and hence it may be used as Capital as well as money.

On the Opinion of some Algebraists respecting the nature of Credit, or Debts.

268. Having thus shewn the contradictory notions of some Economists on the subject of Credit, we may as well examine what some very distinguished mathematicians have said about debts, or Credit. We have seen that, among others, MacLaurin, Euler, Peacock, and De Morgan, all admit debts, or Credit, to be *Negative Quantities*. The only real difficulty consists in giving the proper interpretation to the *Negative* sign. Euler and Peacock, in the extracts given above, treat it as a sign of subtraction. But if these distinguished writers had reflected on the general analogy of Physical Science, they would at once have seen that *Negative Quantities* in Natural Philosophy are not subtractions from positive ones, but *Independent Quantities* additional to them.

269. Mr. Justice Byles long ago said that the species of Property consisting of Credit was next in magnitude to the land and the funds. Since he said this, Credit has enormously increased, and may be safely asserted to exceed the funds greatly at present. Suppose that, in order to be within the bounds of the extremest moderation, we place the quantity of Credit existing at the present moment in Great Britain at £1,000,000,000;—what is this to be *subtracted* from, we ask? It is quite clear it is not to be *subtracted* from any thing at all, but is independent property additional other property.

270. But even Dr. Peacock is not consistent with himself in his notion of Debts. Because he says, in the extract given above, that a Debt is Property owed, and that the release of a Debt is the change of the sign of affection of Property owed into property possessed. Now, this is manifestly a different conception of a Debt than its being a *subtraction* from property. But it is equally incorrect. A debt is not an affection of the Property of the Debtor, but a Right residing in the person of the Creditor. The release of a Debt is the destruction of this Right by the consent of the parties. Thus we see that Dr. Peacock is again in error; for he says that the subtraction of a Debt, in the language of symbolical Algebra, is not its obliteration or removal, but the change of its affection or character from money, or property owed to money or property possessed. Now, we see at once the misconception here. The debt is not the money or the goods, but the Right to demand them, and the abolition of the Debt is the abolition or the destruction of the Right, which is the destruction of Property.

271. Thus we see that out of these conflicting notions—

Credit is NOT the TRANSFER of anything; that it is NOT an OPERATION.

Credit is NOT a SUBTRACTION from other property.

Credit is NOT a title to any specific goods.

Credit is NOT Money or Goods owed.

There remains, therefore, only the last conception, that Credit is a mass of property ADDITIONAL to other property, as every writer on the

subject has acknowledged, when treating of the instruments of Credit themselves. Thus, even Mr. Mill says, that a man's purchasing power consists of his money *and* all his Credit, and he speaks of the "mass of Credit" in the country. This mass of Credit, or Debts, however, though additional property to all other, is negative property by the admission of all Algebraists. The only question is, what property can be additional and *negative*, or *inverse*, to money. And there can be but one answer. Money represents the proceeds of a man's past industry, and therefore the only thing that can be additional and inverse, or negative to that, is the proceeds of his *future* industry. A man's power of making *future* profits is, of course, additional to the profits he has already made. And hence we see that the interpretation of the Negative Sign, as symbolizing **FUTURITY**, is the only one that satisfies the conditions of the case. And as soon as this interpretation is adopted, the whole subject falls into harmony and order, all difficulties vanish like the mists before the morning sun, and Political Economy is brought under the well understood laws of Natural Philosophy.

Conclusion.

272. We have now developed the Theory of the Negative Sign, and of Negative Quantities in Political Economy. We see that the interpretation of the Negative Sign, not as **SUBTRACTION**, but as **FUTURITY**, has at once doubled the extent of the science, and shewn how vast masses of property which have never yet been included in any English work are to be classed. And yet the immensely greater proportion of existing property is of this form!

We have seen, too, that what the Algebraists we have mentioned, and hosts of others have merely noticed with a passing remark as Negative Quantities, contain, in fact, one of the most marvellous results of human ingenuity. For that little idea—apparently so simple—of making a Debt transferable, is entitled to rank in its practical effects with the most splendid discoveries of the human mind, and it has produced consequences to the world not one whit inferior to those of the steam engine. The simple doctrine that every future payment has a **PRESENT VALUE**, which is independent exchangeable property, and may be bought and sold like money itself, has increased the effective force of money tenfold, without diminishing its value. In the eloquent and not exaggerated language of Mr. Webster (**BANKING IN AMERICA**, § 448):—"Credit is the vital air of modern commerce. It has done more, a thousand times, to enrich nations than all the mines of all the world." It has excited labour, stimulated manufactures, pushed commerce over every sea, and brought every nation, every kingdom, and every small tribe among the races of men to be known to all the rest; it has raised armies, equipped navies, and triumphing over the gross power of mere numbers, it has established national superiority on the foundations of intelligence, wealth, and well-directed industry." It is to Scotland that is due the unquestionable merit of first having developed the full powers of legitimate credit, and it is this subtle agent which has raised her to her present position. It is Credit which produced those mighty works in

England during the last century. It is, among other things, the want of Credit which kept Ireland so poor and barbarous for so long; it is in the establishment of solid Credit there in comparatively recent times, that she will henceforth find her greatest means of progress and improvement. It is a solid system of Credit which is wanted to develop the resources of rejuvenescent Italy, and it is, above all, solid Credit that is wanted to bring out the boundless resources of India.

The exposition of the Theory of Credit, given in the preceding sections, shews how utterly futile it is for merely literary men to write books on Political Economy, and how absurd it is to suppose that definitions are of no consequence. Who can wonder that the subject has been thrown into such confusion, when such contradictory conceptions are held of the very nature of the thing itself?

To explain the Theory of Credit requires the most careful settlement of every single term and definition in Political Economy, a thorough acquaintance with the history and the law of Credit, (one of the most abstruse branches of law,) and a thorough familiarity with the mechanism of Commerce. Even this is insufficient to unravel its perplexities, which have only finally yielded to one of the most recent and most refined discoveries in Algebra! And thus we see how wonderfully verified is the prescience of Bacon, who so earnestly preached that Natural Philosophy is the only sound basis of exact knowledge.

ANALYSIS OF THE ARTICLE.

- § 1. *Definition of Credit.*
- § 2-3. *Perplexities of Modern Economists about Credit.*
- § 4. *Order of the Treatise.*

SECT. I.

- § 5. *Fundamental Conceptions of the Theory of Credit.*

SECT. II.

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- § 6-10. *On the distinction between a Bailment and a Debt.*
- § 11-13. *A debt is separate and independent exchangeable Property, for which there are shops and markets.*
- § 14. *Confusion between Credit being Property, and an Operation.*
- § 15, 16. *On commercial Credit.*
- § 17. *Error of Expression, Intrinsic Value.*
- § 18. *Anything has as many values as things it will exchange for.*
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- § 23. *Fundamental difference between Bills of Exchange and Bills of Lading. Bills of Lading REPRESENT goods, but Bills of Exchange are of the VALUE of money.*
- § 24. *The limits of Credit.*

- § 25, 26. The above doctrines apparent from the ordinary language of Commerce.
- § 27-29. Examination of Mr. Thornton's opinion on Credit.
- § 30. Paradox of the Negative Sign.
- § 31. The Negative Sign cannot mean subtraction.
- § 32. Mathematicians acknowledge that debts are Negative Quantities.
- § 33. Confusion about the Conception of Credit.
- § 34. From the analogy of other sciences it may be expected that Negative Economic Quantities are Independent Quantities.

On the application of the Theory of Algebraical Signs, and of the Separation of the Signs of Position and Operation to Political Economy.

- § 35-45. Explanation of the application of the Positive and Negative Signs.
- § 46. Property is a Right residing in the person. There may be property in the past, and in the future.
- § 47. Theory of the Value of Land.
- § 48. The Goodwill of a business.
- § 49. Copyright.
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- § 52. All these are cumulative property, and separate from the actual payment.
- § 53. Smith and most other Economists admit that abilities are Wealth.
- § 53-55. The Right to receive a future payment is separate and independent Property. And every future payment from whatever source arising has a PRESENT VALUE, receiving different names, according to the source whence it arises, which is independent exchangeable property.
- § 56. Credit is an annuity of one term.
- § 57. Classification of Property.
- § 58. The unit of Credit is £100 payable one year hence.
- § 59. Peculiar method of expressing the price of this species of Property.
The value of Money varies inversely as Price, and directly as Discount.
- § 60. Erroneous censures of Mr. Mill on the expression Value of Money.
- § 61. Origin of the confusion; double meaning of the word Loan.
- § 62-64. Correction of Mr. Thornton's errors.
- § 65. A RELEASE from a DEBT is an AUGMENTATION of CAPITAL.
- § 66. Examination of Euler's views regarding Debts.
- § 67-71. Examination of Dr. Peacock's views regarding Debts, or Negative Quantities.
- § 72. In Political Economy the signs + and - as signs of Position symbolize TIME.
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- § 73. Credit is the Right to a future payment.
- § 74. This shews the limits of Credit.
- § 75. This shews the error of Law's Theory of money.
- § 76. The Quantity of Credit depends on the Circulation of Money.
- § 77. Cause of commercial catastrophes.
- § 78. Debts may be bought and sold for other debts.
- § 79. Credit may be Capital as well as any other property.
- § 80-83. How Credit is PRODUCTIVE

- § 83, 84. Recent French writers have come to this opinion.
 - § 85. Credit usually resolves an exchange into three parts.
 - § 86. Smith places Credit on the same footing as Stock.
 - § 87. Demosthenes said that Credit is Capital.
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 - § 90. Credit and Money are productive by facilitating exchanges.
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 - § 93. Mr. McCulloch declares that Credit is Capital.
 - § 94. Mr. J. S. Mill declares that Credit is productive Capital.
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 - § 96. Mr. Hamilton and Mr. Webster assert that Credit is productive Capital.
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- § 100. Credit forms two divisions, Commercial Credit and Banking Credit.
- § 101. Credit may be used like money to circulate an existing product, or to call them into existence.

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- § 102-128. Exposition of the ordinary system of Commercial Credit.

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- § 152, 153. Another species of Wealth—Incorporeal Property.
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- § 248. *Mr. Mill's definition of Wealth includes instruments of Credit.*
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 § 271. *What Credit is not, and what it is.*
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CREDIT FONCIER.—When after a long period of inactivity the energies of a people are suddenly turned in an industrial direction, they find innumerable enterprises which would be profitable if only they possessed the means of setting them agoing. The quantity of money which was found sufficient for a non-industrial people, is now found to be wholly inadequate to the increased demands for it, and the only consequence can be, that if there be a greatly increased demand for the existing quantity of money, the rate of discount, or interest, will rise proportionably, and rise to such an extent as to preclude all possibility of profit from such enterprises, even if effected.

It has been invariably found, therefore, that whenever this takes place, there are abundant schemes set afloat for increasing the quantity of money. This was particularly the case after the restoration, in England, when men, weary of politics and polemics, began to turn their attention more to commerce.

Among fields of enterprise none appeared at that time more promising than agriculture. But, unfortunately, all the available specie was absorbed in commerce; none was to be had for agriculture, or, at least, except at such rates as to be a practical prohibition.

It was this real want that gave rise to the schemes of Asgill, Chamberlen, and others, for the purpose of turning the land into money, which were so rife at that period. Among all of them, John Law's has attained the greatest name. He perfectly well understood the powers of Credit, and he saw that Credit was an increase of the powers of Money; but he saw that Credit was limited by Money, and his plan was to devise a scheme by which paper money should be created, which should maintain an equality of value with silver.

He supposed that if the land were mortgaged to the Government it might create paper money to the amount of the value in silver of the land, and that this paper money would circulate at par with silver.

This doctrine may seem to have some plausibility in it, and has many modern admirers. But, nevertheless, whenever it has been tried in practice, it has uniformly been found to fail. This, however, is not the place to point out its failure, nor to detail the practical examples of its failure. (**BANKING IN FRANCE; CURRENCY; LAW.**)

Ten years, however, after the failure of Law's system in France, the Scottish Banks, by the admirable invention of Cash Credits, pushed Credit to the utmost extent of its legitimate limits, and realized all that was practicable in Law's scheme.

No one who understands the subject can fail to see the enormous advantages of paper when duly administered. But the great difficulty in all such cases is to determine what are the true limits of the issues of paper. That is, to what extent it may be issued and maintain an equality of value with silver. In fact, it is one of the profoundest problems in Political Economy, and of the most momentous consequence to the prosperity of the nation.

Seeing, then, that paper money directly based upon land was a failure, and that the invention of

Cash Credits could not be carried out by the timid and narrow system of foreign banks, the question was how to divert Capital to the land, without creating paper money.

At the close of the seven years' war, the proprietors in Silesia found themselves in a state of inextricable embarrassment. The ruin and destruction caused by the war, and the low price of corn, caused by the general distress, made them unable to meet their engagements. Interest and commission rose to 13 per cent. They obtained a respite of three years to pay their debts. To alleviate the distress arising out of this state of matters, a Berlin merchant, named Büring, invented a system of Land Credit, which has been very extensively adopted in Germany, Russia, Poland, and lastly in France.

Proprietors of land can no doubt borrow money on mortgage; but in every country such transactions are attended with many inconveniences. They have many expensive formalities to undergo, such as investigation of title, &c. Moreover, the difficulties and expense of transfer are usually very great, as each purchaser has to undergo the same investigation and expense. If the debtor fails to pay, the process of obtaining redress, or possession of the land, is usually very troublesome and expensive. The consequence of all these obstacles is, of course, to raise greatly the terms on which money can be borrowed on mortgage.

The system of Government Funds suggested to Büring the idea of creating a similar species of land stock. The Government could usually borrow much cheaper than the landlords, because the title was sure and indisputable, and there was no impediment to the negotiability.

Büring, therefore, conceived the idea of substituting the joint guarantee of all the proprietors for that of individuals, and establishing a book in which this land stock should be registered and be transferable, and the dividends paid exactly in the same way as the public funds. The Credit, therefore, of the Association, was always interposed between the lenders and the borrowers. Those who bought this stock looked only to the Association for payment of their dividends, and the borrowers paid all interest, &c., to the Association, which took upon itself all questions of title and security. The whole of these obligations were turned into stock transferable in all respects like the public funds. Such is the general design of these Associations. It is plain that they avoid the rock of creating paper money, while they greatly facilitate the application of Capital to the land. They, in fact, do nothing more than turn mortgages into stock.

There are different methods of organizing such Associations, which we shall describe presently, but we may say in a general way that the system was introduced into Silesia in 1770; the March of Brandenburg, in 1777; Pomerania, in 1781; Hamburg, in 1782; West Prussia, in 1787; East Prussia, in 1788; Luneburg, in 1791; Esthonia and Livonia, in 1803; Schleswick-Holstein, in 1811; Mecklenburg, in 1818; Posen, in 1822; Poland, in 1825; Kalenberg, Grubenhagen, and Hildesheim, in 1826; Wurtemberg, in 1827; Hesse-Cassel, in 1832; Westphalia, in 1835; Galicia, in 1841; Hanover, in 1842; and Saxony, in 1844.

These Associations are divided into two classes.

The first are private associations, and these again are divided into companies founded by the borrowers, and financial companies founded by the lenders; the second are associations founded by the State or the provincial authorities.

The fullest information respecting these Companies is to be found in M. Jossean's work, mentioned below, from which we take the following details.

Of Private Associations formed by the borrowers there are—

Pomerania.

The *Société de Pomerania*, called *Landschaft*, or, *Landschaft Casse*, founded in 1781, with an advance of 200,000 thalers from Frederick II., and with revised statutes, in 1846.

The Company creates negotiable obligations at $3\frac{1}{2}$ per cent. for 100 thalers and upwards, and $3\frac{1}{2}$ per cent. below, payable half-yearly.

The proprietor pays 4 per cent. interest, and $\frac{1}{2}$ per cent. for expense of management.

The holder of the obligations has, as security for their payment, the entire capital of the Company, the land specially mortgaged for them, and the liability of all the proprietors of the circle, and, if that should fail, all the proprietors of Pomerania. There is no priority of preference among the obligations. The holder may take away the negotiability of the notes, which can only be restored by a Court. The holder cannot demand repayment, but the Company may pay off their bonds. These bonds can only be issued on property in the power of the Company.

The head office of the Company is at Stettin. A royal commission has the surveillance of its operations, and presides at the general meetings. The Administration consists of a director and two assistants. There are four departments in the country, with a director at their head, and several branches to each. These branches have to make all the necessary inquiries concerning the property upon which loans are to be advanced.

The borrowers receive the Company's bonds at the exchange of the day, in sums of 200 or 1,000 thalers. For one-tenth of the loan they may receive 100, 50, and 25 thaler notes. They may pay either in money, or in the Company's bonds, which they may purchase from the public. Overdue coupons are also received as ready money. Thus, again shewing that the Release of a Debt is equivalent to the payment of money, or — \times — = + \times +. A debtor may at any time pay off his debt, on giving 8 months' notice before the payment of the coupons, and paying a deposit of 5 per cent. The Company may also redeem its bonds on giving 6 months' notice. In 1837, its bonds in circulation amounted to 55,602,844 dollars, and they were above par.

Russia.

The *Banque de Crédit System* was founded in 1818, by Alexander, who advanced funds for its organization. It extends through the Baltic Provinces, Livonia, Esthonia, and Courland.

It issues bonds transferable by indorsement bearing 4 per cent. interest, something for expenses, and something also to form a sinking fund. Its bonds are received by the Government at their nominal value.

Poland.

The *Société de Crédit Foncier de Pologne* was founded in 1825, and reformed in 1838. It issues bonds bearing 4 per cent. interest, transferable by indorsement or delivery. The borrowers pay 4 per cent. interest, 2 per cent. to form a sinking fund, a fee of 1 florin for notes of 200 or 500 florins, and 2 florins for those of a 1,000 florins. By this means the debt is redeemed in 28 years. The sum advanced does not exceed one-half the estimated value of the land. The holders of the Company's bonds have as security, besides the lands specially mortgaged, national domains given by the Crown, and the reserve fund of the Company. The bonds are issued at Warsaw, at the head office, on the recommendation of the branches in the departments. Debtors may free themselves at any time by paying off the debt and 2 per cent. additional. A general meeting is held every two years, at which the Minister of Finance presides. The bondholders also have meetings, at which all the creditors above 10,000 florins have a voice for the purpose of considering any proposals made by the Company.

Gallicia.

The Company of Gallicia is the only Bank of *Crédit Foncier* in Austria. It was founded in 1841 by the Provincial Estates. It issues bonds of from 100 to 1,000 florins, bearing interest at 4 per cent. Besides the 4 per cent., the borrower pays 1 per cent. to form a sinking fund, a single payment of 3 per cent. to form a reserve fund, $\frac{1}{2}$ per cent. for cost of management, and the first six months' interest in advance, on receiving the loan. The bonds cannot be issued for less than 1,000 florins, and only to the extent of one-half of the free value of the land. The holders of the bonds may be compelled to receive payment of them on receiving 6 months' notice. The debtors may always pay off their obligations by adding 6 months' interest. In 1843 the Company's bonds in circulation amounted to 11,414,016 francs.

Wurtemberg.

The *Wurtembergischer Creditverein* was founded in 1827, and its statutes revised in 1831. It differs from the preceding Companies so far that it advances the money itself to the borrowers, and not merely its bonds. Its operations were at first limited to 6 millions of florins, but it has the right of contracting new loans. The Company gives to its creditors negotiable bonds, which may be divided into 100, 200, 500, or 1,000 florins. They bear interest at 3 per cent. The Company only lends on first mortgages, and to the amount of one-half of the value, or two-fifths of the income. The borrowers, besides the 3 per cent. interest, pay $\frac{1}{2}$ per cent. for cost of management; 1 per cent. as a sinking fund, by which the loan is redeemed in 48 years.

The Company makes profits by the debtors paying their interest half-yearly, while it only pays its creditors yearly. The debtors also pay their interest 6 weeks before the end of the half year. At the redemption of the debt at the end of the 48 years, the debtors pay two years' interest to form a reserve fund, and to free themselves from their joint liability. They must also pay $\frac{1}{2}$ per cent. of their actual debt for cost of manage-

ment, and a premium of $4\frac{1}{2}$ per cent. on the advance, and when they wish to pay off any part of their debt before it is due, they must pay 10 per cent. additional. The contribution to the sinking fund varies according to the choice of the borrower, so that he may pay off the debt at the minimum of 10 years, or the maximum of 50. In 1846 the Company had bonds to the amount of 11,936,930 francs in circulation, which stood at a premium of 12 per cent.

Saxony.

There are two Land Credit Banks in Saxony, one private and the other public. The private one is called the *Union de Crédit des pays Heréditaires*, created in May, 1844, with revised statutes in 1849. It advances on both nobles' and peasants' land, which produce not less than 1,256 francs a year. It makes its loans by bonds of 500, 100, and 25 thalers, at an agreed rate of interest, and to not less than 3,756 francs, and not more than half of the value of the land. Debtors must pay half-yearly, and three months before the Company pays its dividends. The public authorities and trustees are authorized to invest funds at their command in these bonds. In 1849 those in circulation amounted to 4,470,656 francs.

Hanover.

Hanover has one public and four private associations of *Crédit Foncier*. The private ones are—

1. *Institut de Crédit Hypothécaire de Luneburg*, founded in 1790, for making advances to the nobles. Its bonds are not less than 200 thalers. It pays dividends of 3 per cent. half-yearly. The borrower pays 5 per cent. for the first five years, and $4\frac{1}{2}$ per cent. afterwards half-yearly. It never can demand more than 5 per cent. from the debtors, but if it is obliged to pay more than 3 per cent. on what it borrows, it may take the difference from the sum paid towards the sinking fund. The debtors may pay by instalments of 50, 100, 200, or more, thalers, on giving six months' notice. If they redeem the debt before the end of five years they must pay 2 per cent., after that $\frac{1}{2}$ per cent. The debtors pay 2 per cent. for the first five years, and $\frac{1}{2}$ per cent. from the sixth to the seventeenth years.

2. *Association de Crédit pour l'ordre équestre des principautés de Kalenberg, Grubenhagen, et Hildesheim*. This Company was founded in 1825, and by new statutes in 1838 was enabled to make advances on peasants' land, if not less than 6,000 thalers in value. Its organization is very much the same as that of Luneburg. In 1844 its bonds in circulation were only 1,500,000 thalers.

3. *Etablissement de Crédit pour l'ordre équestre des principautés de Brême et de Verden*. This Company was founded in 1826. Its statutes are very similar to those of the Bank of Luneburg. It charges $4\frac{1}{2}$ per cent. when it advances to the value of one-half of the land. The debtors may redeem their debts, either in 72 years by paying $\frac{1}{2}$ per cent.; in 56 years by paying $\frac{1}{4}$ per cent.; in 47 years by paying $\frac{1}{8}$ per cent.; or in 41 years by paying 1 per cent. The charge for cost of management is not to exceed $\frac{1}{4}$ per cent.

4. *Association de Crédit pour les propriétaires dans les principauté de la Frise Orientale, et de*

Harlinger-land. This is a small establishment, founded in 1828.

Mecklenburg-Schwerin and Strelitz.

These two Grand Duchies have a Bank of *Crédit Foncier* between them. This was among the earliest founded, and was remodelled in 1818. It issues bonds varying from 1,000 to 25 thalers, bearing $3\frac{1}{2}$ per cent. interest. The debtors pay, besides this interest, $\frac{1}{2}$ per cent. half-yearly, as well as a premium of $\frac{1}{2}$ per cent. on the loan, to cover cost of management, and $\frac{1}{2}$ per cent. to form a sinking fund. The debtors may redeem their debts in advance by buying up the Company's bonds.

Hamburg.

A private *Caisse de Crédit pour les propriétés et les terrains de la ville de Hamburg* was founded in 1832, and its statutes revised in 1844. Its intention is to form a fund by gradual contributions, to make advances to proprietors whose lands are mortgaged and the sums demanded by the mortgagees, and to extinguish the debt by a yearly sinking fund. There are three classes whom this Company is intended to benefit: 1, Proprietors of land situated in Hamburg, who may place their money at interest in it; 2ndly, Proprietors whom the Company guarantees against their creditors to the extent of $\frac{2}{3}$ of their property; and 3rdly, Private persons who wish to buy real property by making annual payments.

Those of the first class pay 2 per cent. on the estimated value of their property on entering, as well as $\frac{1}{2}$ per cent. half-yearly. The Company pays $2\frac{1}{2}$ per cent. on these sums, when they amount to 1,000 marcs-banco. Proprietors who wish repayment must give 6 months' notice; they may receive a bond if they please.

The contributions paid by the second class are similar to those of the first. The property is re-valued every five years. The guarantee of the Company consists in this, that the proprietors can claim its assistance when the payment of the debt is demanded from them, and they cannot get it elsewhere at 4 per cent. Those of whom payment is demanded must give notice to the Company within 4 weeks, and must themselves endeavour to raise the money. If the Company has to pay off the debt, it succeeds to the rights of the creditor. The debtor must then pay 4 per cent. per annum, besides his other contributions; but he is not liable to be called on to pay the capital. But he may pay it off on giving 6 months' notice.

Those of the third class specify the capital they require, for which they receive a note. The payments are the same as those of the first class. But if they place a sum in it they receive $2\frac{1}{2}$ per cent. interest. When the purchase is made they may enter either of the other classes. The Company receives deposits from the public, in return for which they give bonds bearing interest at 3 per cent. above that sum, payable yearly.

Denmark.

In 1786 the Government founded a *Credit-Kasse* for the purpose of making advances for the improvement of agriculture at 2 per cent. It has since then founded several savings' bank for the same purpose. In 1850 a law was passed to form

the establishment of Banks of *Crédit Foncier*. It enacted that each society must have an united fund of 1 million rixdalers, or 3 million francs. Its bonds must not be below 50 rixdalers, nor for a sum exceeding the mortgage, which must not be for more than two-thirds of the value of the land. The members to be jointly and severally liable for the bonds. The debtors must pay something to a sinking fund. The banks must send a quarterly balance to the Minister of the Interior. The bonds of the bank are free from stamp duties, and the property of minors and of the public may be invested in them. The banks may borrow and lend above the legal rate of interest 4 per cent. This law was received with great favour, and immediately on its passing several banks were formed, but we have no information how they have succeeded up to the present time.

The second sort of private associations consists of those formed by companies of lenders.

Bavaria.

No establishment of *Crédit Foncier* was founded in Bavaria before 1835, though many had been talked of. In that year the *Banque Hypothécaire et d'escompte* was founded at Munich, by a company of shareholders, with a capital of 10 millions of florins, divided into 20 thousand shares.

This bank issues notes at 10 florins, which are legal tender, discounts bills, receives deposits, and is also a fire and life insurance company, a savings' bank, and one of *Crédit Foncier*. Its privilege is for 99 years. Its notes must not exceed 4-10ths of its capital, nor the sum of 8 millions of florins. Three-fourths of its issues must be covered by a mortgage of land of double the sum advanced, the remaining fourth by specie.

The bank lends on all sorts of capital producing revenue, in sums not less than 1,070 francs. The borrower pays an interest which cannot exceed 6 per cent., nor be less than 4½, including the sinking fund. At the minimum it requires 61½ years to redeem the debt. The sum paid to lenders is 3 per cent., and 1 per cent. is kept for cost of management, and a reserve fund. Interest is paid half-yearly. But at each payment the sums paid to the sinking fund are marked off against the capital, and the balance treated as a new loan. The obligations signed by the borrowers are not negotiable. Their place is filled by the shares of the bank and its notes. Its shares have been quoted at 30 per cent. premium. The bank pays its shareholders an interest only of 3 per cent. per annum, but they divide the other profits. Its notes enjoy great credit, and are received in public payments. The affairs of the bank are governed by the 60 principal shareholders. They name seven shareholders as directors, who must not engage in commerce. The sixty meet once a year, the directors once a week.

This bank passed easily through the financial crisis of 1848. In 1849 its loans amounted to 13,952,598 florins. It has been found to be of the greatest public utility, and has constantly increased in prosperity.

Hesse-Darmstadt.

There is a company with limited liability, called the *Renten-Anstalt*, at Darmstadt, which, besides granting life assurances and tontines, makes

advances on land, to double the value, in sums of not less than 500 florins. The borrower may pay off the loan in annuities of from 6 per 100 to 30 per cent. at his pleasure. At 6 per cent, the debt is redeemed in 33 years. The company pays its creditors 4½ per cent. per annum. The borrower may always accelerate or retard the final liquidation by increasing or diminishing the annuity.

Belgium.

In Belgium some of these institutions have failed. But there are two in operation.

1. *Caisse des propriétaires*, a limited liability company, founded at Brussels in 1835, and incorporated for 99 years. It lends to the amount of 66 per cent. of the value of the land. The interest is fixed from time to time. The borrower pays besides something to extinguish the capital, and not more than 1 per cent. on the loan for commission. He may regulate the annuity so as to extinguish the debt in terms of from 5 to 60 years. Borrowers may pay the interest either in money or in the company's obligations. They may also discount their debts at the rate agreed upon.

The company issues its obligations on the first of every month for the sum agreed to be advanced during the preceding month. The capital is 3 million francs, divided into shares of 500 francs. The Bank of Brussels receives the company's obligations at par.

2. *Caisse Hypothécaire*. This, like the last, is a company with limited liability, founded in 1835, incorporated for 60 years. This bank borrows at 4 per cent. by issuing shares, which also participate in any surplus profits. It lends at 4 per cent., with 1 per cent. commission, and an annuity to redeem the debt. It issues its obligations once a month, and receives them exclusively in payment of the annuities due to it.

The second class of these establishments are founded by the State and under its control.

Russia.

In Russia there are four classes of institutions of *Crédit Foncier*. The first was founded by the Empress Catherine II., about the middle of the last century. There are more than 100 in the country. They consist—1. Of those managed by the Ministry of Finance for the benefit of the state; 2. Local establishments in each Government under the Ministry of the Interior; 3. Those founded by the Communes; 4. Those directed by the Council of the Foundling Hospital, under the patronage of the Empress. Every one holding the rank of nobility, merchant, or agriculturist, who possesses landed property, has a right to *Crédit Foncier*. Proprietors of lands with serfs are entitled to an advance of 10 silver roubles for every male serf. The borrower pays 5 per cent. interest, ½ per cent. for commission, and ¼ per cent. on the advance. It is said that the proprietors prefer to borrow from private bankers, in consequence of the terms of repayment being easier.

Hanover.

In Hanover a State Bank was founded in 1840, to facilitate the redemption of the feudal burdens and tithes, and it extended its operations as a bank of *Crédit Foncier* into those provinces which had none before. Its statutes were revised in 1849.

It issues bonds repayable in six months, and one month after sight, not exceeding 5,000 thalers. The Government guarantees the bank to the amount of 80,000 thalers, and always keeps 100,000 thalers ready to assist it to repay its bonds if necessary. The borrower pays not more than $\frac{1}{4}$ per cent. per annum— $\frac{3}{4}$ for interest, $\frac{1}{4}$ per cent. for management, and $\frac{1}{4}$ per cent. for sinking fund. This redeems the debt in 60 years. At 1 per cent. the debt is redeemed in 43 years. If the rate of interest falls below $\frac{3}{4}$ per cent., the remainder goes to the benefit of the sinking fund. The bank is said to have done great service by redeeming the feudal burdens.

Saxony.

There is besides the private bank we have already mentioned, a State bank, called *Banque Hypothécaire des États Provinciaux de la Haute-Lusace*, founded in 1844 by the Estates of Haute-Lusace. It issues bonds for not less than 100 thalers, bearing interest fixed from time to time by the Estates. The borrower pays also a premium of $\frac{1}{4}$ to $\frac{1}{2}$ per cent., and also $\frac{1}{4}$ per cent. to the reserve fund. He is not bound to pay an annuity as a sinking fund, but may pay it in any sums he pleases, not less than 20 thalers. In case the debtor does not pay the interest within a month after it is due, the bank may call up the capital. In 1847 the bonds in circulation were 1,668,330 francs. It is said not to be in a very prosperous condition, as the expenses of management are too great.

Hesse-Electorale.

In 1832 the Government founded a bank, called the *Landes-Credit-Kasse*, to assist the peasants to redeem their tithes, and feudal burdens, by loans, at from $\frac{3}{4}$ to 2 per cent. Its operations have been extended by subsequent statutes. The bank borrows from other banks, savings' banks, corporations, and private persons, and from the State, at rates not exceeding $\frac{3}{4}$ per cent., the sums it lends out. The State is liable for all its obligations. Debtors pay $\frac{1}{4}$ per cent. interest. At the end of 1848 the bank had advanced 17,586,536 thalers, and it is said to have been of great service.

Nassau.

In this little State a State bank was founded in 1840, to furnish advances to the communes and landed proprietors to redeem their ancient debts, tithes, and other burdens, to assist agriculture and commerce generally. Its capital was fixed at 3,500,000 florins. The seventh part of this sum was created by means of notes, 100,000 of one florin, 50,000 of five florins, and 6,000 of 25 florins. These notes are received as ready money by the Government, and are payable in specie. It acts as a savings' bank, and one of deposit. Loans must be covered by twice their value in land. The borrower pays 4 per cent. interest, and 1 per cent. as sinking fund. In 1848 the bank was re-organised and transformed into a national bank.

Bremen.

The magistrates of Bremen have instituted a bank which seems more nearly to approach the ideas of Law, or Cieszkowski, than any of the

others we have mentioned. The owner of real property has the right to deliver to commissioners appointed by the magistrates his titles to it, and these are made negotiable like Bills of Exchange. These instruments are of the nature of Dock Warrants.

In Belgium and Switzerland projects for institutions of this nature were brought forward and in course of organization at the date when M. Josseau's book was published.

These institutions have had the most remarkable effects in promoting the agriculture of the countries they have been founded in. Their obligations have maintained through all crises—monetary, war, and revolutionary—a steadiness of value, far beyond any other public securities whatever, either government or commercial. M. Josseau states (*Traité du Crédit Foncier. Introd. p. xxv.*), that in a population of 27,827,990 the negotiable *Lettres de Gage*, or *Pfandbriefe*, amount to about 540,423,158 francs. In 1848, when all public securities fell enormously, owing to the revolution, the *Pfandbriefe* kept their value better than anything else. The Prussian funds fell to 69, the shares of the Bank of Prussia to 63, and the Railroad shares to 30 to 90 per cent., whereas the Land Credit bonds, producing $\frac{3}{4}$ per cent. interest, in Silesia and Pomerania stood at 93, in West Prussia at 83, and in East Prussia at 96. In 1850, those producing 4 per cent. were at 102 in Posen, and at 103 in Mecklenburg.

France.

The marvellous effects of the institutions of *Crédit Foncier* were long unknown in France. At length the increasing weight, and the heavy terms at which the landed debt was contracted in France, began to attract the attention of economists and statesmen. In 1851 the value of the real property in France was estimated at 56 milliards, and its gross income at 1,920 millions. Upon this income the land tax amounted to 240 millions, and the interest on the mortgage debt, estimated at an average of 7 per cent., to 560 millions, leaving 1,120 millions for the support of all the proprietors. On the 1st July, 1820, the mortgage debt in France amounted to 8,863,894,965 francs; on the 1st July, 1832, to 11,233,265,778; and on the 1st July, 1840, to 12,544,098,600; and though later official accounts of the total were not published, it continued to increase up to the revolution of 1848.

The heavy rate of interest on mortgages was due greatly to the imperfect state of the law, which permitted secret mortgages, which could not be discovered by the lender. M. Dupin, the *Procureur Général*, said in 1840:—"In France, the purchaser is never sure of becoming the proprietor; the lender on mortgage is never sure of being paid." We need not be surprised that many estimated the usual interest upon mortgage at 12, or even more, per cent. Owing to these causes landed property was held in bad odour as a security. In 1826, M. Casimir Perier offered a prize of 3,000 francs for the author of the memoir on the best method of improving the law of mortgage. These appeals produced some effect. In 1841, the *Cours d'appel* and the *Faculté de droit* appointed a committee to prepare a scheme of reform, which was just going to be laid before the Chambers when the revolution took place. When

the effervescence produced by this event had calmed down, the Government and the Assembly each appointed a committee to consider the subject. Each of them recommended that all transfers of property, and all burdens on it, should be made public. Both the *Conseil d'état* and the Assembly, however, rejected this proposal. The Government, following the *coup d'état* of the 2nd of December, effected some reform, so that third parties might ascertain the debts affecting land.

M. Wolowski seems to have been the first who brought the banks of *Crédit Foncier* before the notice of the French, in 1835. The idea began to spread slowly. In 1845 the *Conseils Généraux* were consulted, and M. Royer received a commission to go to Germany and study their mechanism. The reports published by him helped to enlighten the public mind. In 1848 multitudes of projects for making paper money, and mobilizing the land, were brought before the Assembly, which were warmly and successfully combatted by MM. Thiers and Léon Faucher on the 10th and 11th of October, 1848. The sufferings of the agriculturists, however, were very severe. M. Wolowski brought forward his plans again, which were warmly taken up by meetings of agriculturists and manufacturers. A meeting of proprietors was held at Paris, to overcome opposition and introduce banks of *Crédit Foncier* into France. The Government then took up the matter. The *Conseil d'état* opened an inquiry, and gave a hearing to every one who had anything to say—Economists, Financiers, Administrators, Lawyers, and projectors of schemes. Further information was sought from Germany. Louis Napoleon had especially studied the *Crédit Foncier* banks in Germany, and had long desired to introduce them into France. Feeling himself less embarrassed after the 2nd of December, he appointed a commission, and himself presided at its meetings, and on the 28th of February, 1852, a decree authorizing the formation of such institutions was published.

Immediately this was done, M. Wolowski, who had so long laboured in the cause, formed a company, whose statutes were approved of on the 3rd of July, 1852, and called the *Banque Foncière de Paris, Société de Crédit Foncier*. It received a privilege for 25 years to carry on operations within the limits of the Cour d'Appel of Paris. Soon afterwards similar institutions were formed at Marseilles, Nevers, Lyons, Toulouse, Orléans, Poitiers, Limoges, Rouen, Bordeaux, Brest, and other places. It was then considered that it would be far more advantageous to have all these consolidated into one great establishment than to remain separate ones. The land bonds would be far more negotiable at the Bourse if they were those of one great company, than if each separate one stood upon its own credit. In December, the establishments of Marseilles and Nevers were united with that of Paris, which was authorized to extend branches into any department where none existed, and to incorporate with it all existing societies, and was then called the *Crédit Foncier de France*. The bank received a subvention of 10 millions from the State, and was bound to raise its reserve fund to 60 millions, and to advance on mortgage 200 millions, redeemable in annuities of 5 per cent., including interest, sinking fund, and cost of management. The debt was extinguished in 50 years by these means. Other

measures were taken to facilitate the abolition of secret mortgages, which was the principal obstacle to their success. M. Josseau's work, published in 1853, contains a full exposition of the mechanism of the proposed institution.

Properly organized, it would be impossible to exaggerate the benefits which such an institution would produce to France, and under the sage direction of M. Wolowski, who was so complete a master of the subject, and who knew well to avoid the dangerous rock of creating a paper money based on land, there would have been no danger of the institution straying from its legitimate objects. But in the 6th volume of Messrs. Tooke and Newmarch's invaluable *History of Prices*, which brings information up to a later date than M. Josseau's work, it appears that in 1854 great and hazardous changes were made in its constitution. By a decree of July, 1854, M. Wolowski, was superseded in its management; a governor, the Comte de Germiny, was appointed, with two sub-governors, MM. Crépy and Daverne. Its objects, as defined by its statutes, are to lend upon mortgage of lands, in any of the departments, sums redeemable by terminable annuities; to adopt any other system of lending upon real security; to create an amount of negotiable interest bearing securities equal to its advances; and to receive deposits, without interest, of sums destined to be turned into these *Obligations Foncières*, or land bonds. The privilege to the company is for 99 years, from 1852. It was intended that the annuities charged should redeem the debts with interest in 50 years. The first charge made by the company was 5 per cent., but, this being found too low, it was raised to 5.44 per cent., then to 5.65 per cent., and then to 5.949 per cent. The bonds are for 1,000, 500, and 100 francs, and bear 3 per cent. interest, but are repayable by lottery drawings, held four times a year, at 1,200, 600, and 120 francs. But a very curious and objectionable species of gambling has been introduced into the lottery, in order to stimulate the public to purchase the bonds. The first bond of 1,000 francs drawn is entitled to a prize of 100,000 francs; the second to 50,000; the third to 40,000; and from the 7th to the 14th to 5,000. The bonds of lower denominations are entitled to rateable prizes. In 1853 and 1854, says Mr. Newmarch, the sum given away as prizes amounted to 1,200,000 francs, and in 1855 to 800,000 francs, and by means of these stimulants at this period it had obtained more than three millions sterling of deposits. As, however, the whole landed debt of France amounts to 320 millions sterling, we see what an enormous field the company has to work upon. In short, should it even succeed in converting a moderate proportion of it, it may become almost a power in the State. If it should succeed in converting the whole it would exceed many times all the banks of *Crédit Foncier* of Germany together. Mr. Newmarch justly censures the gambling element introduced into it as vicious in all points of view, both of economics and morals.

By the annual report of the Directors for the year 1861, published in the *Moniteur* of the 3rd of May, 1862, the position of the company was as follows:—

The loans on mortgage and to the communes, which in 1860 amounted to 69,489,445 francs,

rose in 1861 to 120,065,519, of which there were to private persons 90,272,334, and to communes 29,793,185·12. Of the private loans two-and-a-half millions were for short dates, the remainder for long dates. In 1860 these loans were 709 in number, and 48,054,300 francs in amount; in 1861 they were 1,136 in number, and 87,772,334 in amount, shewing an increase of 63 per cent. in number, and 80 per cent. in amount. Of these 826 amounting to 19,380,700 were advanced to persons in the department of the Seine; 332 to the amount of 18,218,000 in the departments. In 1860 the number of these latter was 199, and their amount 12,617,000; in 1859, their number was 110, and the amount 6 millions.

In 1861 the loans were as follows:—

To 1,000,000 and upwards	8	.....	20,000,000
From 500,000 to 1,000,000	8	.....	5,970,000
" 100,000 " 500,000	162	.....	32,784,000
" 50,000 " 100,000	168	.....	13,827,000
" 10,000 " 50,000	472	.....	13,037,700
" 10,000 and less	845	.....	1,980,300

being an average of 76 thousand on the whole.

Up to the end of 1861, the number of long loans effected by the company was 3,941, to an amount of 275,577,314 francs, of which there had been cleared off by the sinking fund, 6,419,665·60, and by payments in advance 15,347,533·20, leaving in existence 253,810,115·20. Of these 2,404 had been made in the department of the Seine, and 1,537 in the departments. These loans were classed as follows:—

1,000,000 and above	8	.....	41,500,000
500,000 to 1,000,000	41	.....	28,562,000
100,000 to 500,000	595	.....	114,592,000
50,000 to 100,000	599	.....	43,671,234
10,000 to 50,000	1657	.....	41,851,580
Under 10,000	1041	.....	5,400,500

During 1861, the sum the company had to receive for annuities was 11,331,510·02.

The increase in the number and amount of loans was as follows:—

1857	114	.....	8,059,780
1858	227	.....	30,041,200
1859	843	.....	26,886,300
1860	709	.....	43,054,800
1861	1,136	.....	87,807,584

The number of land bonds issued during 1861 was 165,609, and their amount 82,891,800, of which there were 54,461 for 27,317,800, at 3 to 4 per cent.; and 111,148 for 55,574,000 at 5 per cent. At the end of 1853 the company's land bonds in circulation amounted to 22,099,600 francs; at the end of 1861 they had increased to 259,148,200.

The company receives deposits on current accounts like a bank, one-half of which it places in the Treasury, the other half it may invest in securities of not longer than 90 days. During 1861 it received in deposit 252,794,487, and paid out 57,061,275. The number of depositors at the end of the year was 6,743, and the rate of interest they received during the year 2½ per cent.

The dividend per share was 17·50 francs for 1853 and three following years; 20 francs for 1857; 22·50 for 1858; 25 for 1859; 30 for 1860; and 37·50 for 1861, being at the rate of 15 per cent.

Seeing the great development of the company, the directors determined to issue a second series of 60,000 shares, which they were permitted to

do at any time, but ordered to do by a statute of July 6, 1860, whenever their obligations amounted to 600 millions. These shares are to be issued at the price of 250 francs, payable by instalments.

Great Britain and Ireland.

Banks of *Crédit Foncier* have never been formally introduced into Great Britain. In Scotland we have seen that their practical effects had been anticipated by the invention of Cash Credits by the Scotch Banks. By the excellent system of registration of titles to land which has been long in use in that country, all difficulties which have been felt in other countries with regard to secret mortgages were obviated. The rigorous system of entails, however, which prevailed in that country for a long period counteracted the good that might have been done. Successive Acts, however, were passed to mitigate these evils; and the progress of the country has been correspondingly rapid.

In England many obstacles, political and legal, tended to retard and impede the application of Capital to the improvement of the land. When the desire for it, however, existed, the different Insurance Companies supplied the necessary means, and Mr. Newmarch says that in 1858 there were probably advances to the amount of 80 or 90 million sterling by the different Insurance Offices. These, therefore, performed the part which it was the purpose of the Banks of *Crédit Foncier* to supply, only the securities they take are not negotiable.

These facilities, however, not being sufficient for reasons arising out of the tenure of land, an Act was passed, Statute 1840, c. 55, to enable the owners of settled estates to charge their estates with annuities to redeem advances made for draining them. Tenants for life were authorised to petition the Court of Chancery to enable them to borrow money to drain their estates, to be paid off by instalments, in not less than 12, and not more than 18 years, with 5 per cent. interest. But the Court was not to allow such advances to be made unless it was certified to them that the annual value of the lands would be increased by at least 7 per cent. These formalities greatly impeded any improvements that might have been done.

The Repeal of the Corn Laws in 1846 threw the landed interest into a great state of alarm, as is not to be wondered at. It was seen that their principal hope of combatting the effects of low prices was in agricultural improvements. In that year an Act, Statute 1846, c. 101, was passed to authorize the advance of £2,000,000 for Great Britain, and £1,000,000 for Ireland, by way of Exchequer Bills, to promote the improvement of land by draining, to be redeemed by a rent charge of 6½ per cent. for 22 years. These Exchequer Bills we see exactly represented the *Lettres de Gage* of the German Banks of *Crédit Foncier*.

This operation, excusable under the particular circumstances of the case, was, however, contrary to sound principles, as the Government had no business to make advances to one species of industry rather than another. The plan was found successful, and in 1849 an Act was passed to facilitate advances on a similar plan by private persons, Statute 1849, c. 100. The Inclosure Commissioners were appointed to act as the intermediaries between those who wished to lend and those who wished to borrow. Some private

Companies were formed for this purpose, and they obtained private Acts, thus being Banks of *Crédit Foncier*, except that their bonds were not made negotiable. A paper read by Mr. Denton before the Society of Arts in December, 1855, and quoted by Mr. Newmarch, states that the area of cultivated land in Great Britain is about 44 million acres, of which one half requires draining. Of this only about 6 per cent. was drained. That to drain the remainder properly would require a sum of about 107 millions sterling. Since that period considerable advance has been made, but from this statement it is clear what an extensive field is open in this country for the establishment of Institutions of *Crédit Foncier* on sound principles.

CREDIT MOBILIER.—In the preceding article we have given some account of a species of banks which have been found to be of the most beneficial nature, and to have immensely developed the productive powers of the earth. The increasing attention paid to industrial subjects in France since the accession of the Emperor Napoleon III., gave rise to a new species of bank, whose organization we must now endeavour to explain.

On the 18th November, 1852, the Government sanctioned the statutes of the *Société Générale de Crédit Mobilier*, which received a privilege for 99 years. Its objects, as stated in its statutes, Tit. II., are—

1. A souscrire ou acquérir des effets publics, des actions ou des obligations dans les différentes entreprises industrielles, ou de crédit, constituées en Sociétés anonymes, et notamment dans celles de chemin de fer, de canaux et de mines, et d'autres travaux publics, déjà fondées ou à fonder.

2. A émettre pour une somme égale à celle employée à ces souscriptions, et acquisitions, ses propres obligations ;

3. A vendre ou donner en nantissement d'emprunts, tous effets, actions et obligations acquies, et à les échanger contre d'autres valeurs ;

4. A soumissionner tous emprunts, à les céder et réaliser, ainsi que toutes entreprises de travaux publics ;

5. A prêter sur effets publics, sur dépôts d'actions et obligations et à ouvrir des crédits en compte courant sur dépôts de ces diverses valeurs ;

6. A recevoir des sommes en compte courant.

7. A opérer tous recouvrements pour le compte des compagnies susénoncées, à payer leurs coupons d'intérêts ou de dividende, et généralement toutes autres dispositions ;

8. A tenir une caisse de dépôts pour tous les titres de ces entreprises.

Until the whole of the share capital was taken up, the obligations of the Company were not to exceed five times the amount of the paid up capital. When it was all paid up they might be ten times the Capital. But they must always be covered by an equal amount of public securities, shares, and other securities. They were to be payable either at sight, or at not less than 45 days. The united amount of the sums received on current accounts, and of obligations created of less than a year's currency, were not to exceed twice the amount of the paid-up capital. The capital was fixed at 60 millions of francs, divided into 120,000 shares of 500 francs, transferable by delivery.

The *Crédit Mobilier* arose out of the necessity we have described in the preceding article as being felt in any country in which a spirit of commercial enterprise is suddenly developed before the system of Credit is fully understood. We have already said that the Scotch Banks, during the last century, by means of their cash credits, anticipated the system of *Crédit Foncier*, we may also say that they did the same with most of the objects contemplated by the *Crédit Mobilier*. The Banks of *Crédit Foncier* were especially designed to promote agricultural improvements. The Bank of *Crédit Mobilier* is especially designed to promote industrial enterprises of all sorts—Railways, Canals, Docks, Mines, Gas, &c., &c. Now all these things are done by means of the system of Cash Credits, as we have fully shewn under CREDIT, § 129-144.

But the *Crédit Mobilier* had more ambitious aims than these, which are detailed in its reports for 1854 and 1855. In the first year of its existence it subscribed largely to the *Crédit Foncier*, it aided the consolidation of several railways. The Companies of the *Midi* and the *Grand Central* made them their bankers. They advanced to all subscribers to the new shares of the *Compagnie de l'Est* 200 francs per share at 4 per cent., besides various other operations. In the next year, besides subscribing to a large amount to the public loan required to carry on the Russian war, they subscribed to a loan to the *Grand Central Railway*, and the *Compagnie de l'Est*, and various other industrial operations were promoted under their auspices, such as the *Société des immeubles de la Rue de Rivoli* and the *Société Maritime*. They also assisted a mining company in the Loire, which had for several years been in difficulties ; the General Omnibus Company of Paris ; the Salt Company of the East ; a railroad from Dale to Salines, and some Austrian railways.

Besides detailing these operations, the report of of this year contained an exposition of their ulterior projects regarding paper currency. They wished to form analogous institutions in every country in Europe, all in correspondence with each other, so as to issue obligations having an European circulation, to facilitate the flow of capital from one place to another, and ultimately the assimilation of moneys in Europe. This year the Company declared a dividend of very nearly 12 per cent.

In the following year, 1855, the French Government opened a still larger loan than in the preceding one, to which the *Crédit Mobilier* subscribed two sums of 250 and 375 millions of francs. Its commercial operations were also greatly extended, and need not be enumerated, consisting chiefly of advances to numerous railway and other companies. In consequence of this extension of its operations, the dividends declared exceeded 40 per cent. for the year 1855.

Similar institutions were also founded in Austria and Spain.

The extraordinary success of the Company determined the Directors to commence the issue of their obligations, which they were authorized to do by their statutes. These were of two sorts, one at short dates corresponding to their temporary investments, the other at long dates, redeemable by instalments, corresponding to their permanent investments in Stocks, Shares, &c.

These obligations were to be guaranteed by the investments which they represented, as well as by a Capital appropriated to the purpose. They proposed to issue these obligations to the amount of 240 millions.

The extraordinary dividends declared by the Company, and the boldness with which it published its plans of embracing all Europe in its operations, directed the attention of the financiers in every country to it. Their alarm was excited by its scheme of issuing so vast an amount of paper currency, and they dreaded the revival of the days of Law. A note inserted in the *Moniteur* in March, 1856, forbade the creation of the proposed obligations. This blow deprived the Company of much of its public interest, and from that time its dividends greatly declined. They fell to about 22 per cent. for 1856. The great commercial crisis of 1857 still further reduced them, so that in that year they were only 5 per cent. They were the same for 1858. For 1859 it rose to 7½. In 1860 it was 10 per cent., and in 1861 the same.

The prohibition by the Government of the creation of its paper obligations, saves us the necessity of examining them at length. The *Crédit Mobilier* has no doubt been eminently useful in developing industrial associations, but the securities which it receives are much more liable to fluctuation in value than those of the *Crédit Foncier*, and for that reason its operations are more hazardous. This is fully shewn by the remarkable variations in the dividends.

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CREN, J. J. F.

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CRISIS, COMMERCIAL.—We have under the article CREDIT, endeavoured to explain to our readers the mechanism of the grand system of

Credit, and shew the marvellous effects it is capable of producing on the prosperity of nations. But there is a reverse to the picture. Like every other great power, like gunpowder, like steam, it is attended with commensurate dangers. Misused Credit is the cause of those terrible mercantile catastrophes which periodically sweep over the world. They increase in magnitude and danger with the gigantic development of Credit. It is, therefore, one of the most transcendental problems in practical Political Economy to know how, if possible, to discern the symptoms which betoken the approach of these terrible convulsions, and to deal with them when they occur.

We have shewn under Credit that its fundamental conception is the *Present Right to a future payment*. Nearly all modern Economists are agreed that transfer is one species of production, and that Credit is productive by being purchasing power,—purchasing power, however, which has always to be redeemed.

If, therefore, persons produce, or bring forward for sale in any way whatever, or buy so much on credit, so that the price of the goods, &c., when sold cannot redeem the credit, it is evident that they have brought forward or produced too much. And this is the true meaning of that often used but ill-defined expression **OVER-PRODUCTION**. Every mercantile operation, therefore, attended with a loss, is over-production, and every person who does it is brought by so much nearer to bankruptcy.

All commercial crises arise from a large portion of the commercial community having brought forward, or produced, more than they can sell. Hence we may say, in general, that all commercial crises spring from over-production.

Credit being the great productive power of modern times, and being divided into Commercial and Banking Credit, of course a Commercial Crisis may originate out of the abuse of either, or both. Many speculators on the subject have supposed that by legal regulations they might be prevented or greatly mitigated. It becomes, therefore, of the greatest consequence to modern society to ascertain the sources whence commercial crises originate, and especially how the conduct of great Banks, which are the pillars of Credit, should be guided during the tempest.

Commercial Crises originating in Credit have, of course, a comparatively modern origin. If there were none but transactions in ready money single individuals might be ruined, who speculate injudiciously; but they would involve no one else in their misfortunes. The increased danger under the modern system of credit is that most persons, even of the highest standing, are so involved with others that it is always impossible to tell how the greatest names may be entangled with others. When, therefore, considerable numbers are affected the discredit is sure to enlarge itself very considerably beyond the actual danger.

A very important branch of the inquiry, therefore, is to consider what means should be adopted to extend temporary aid to those persons who are really solvent, but whose credit may be affected by the general distrust.

Commercial Crises may arise out of one or more of the following causes—

First. A long-continued very low rate of interest. Persons in such times who have nothing

but the interest of small capitals to live on, are so straitened in their means, that they look out for more profitable investments. At such times wild speculators are sure to abound to take advantage of the credulous. One scheme breeds another, and a speculative fever seizes upon the public like a mania. Multitudes of schemes are set afloat for no other purpose than gambling in the shares. Numbers of persons then rush to buy the shares merely for the sake of selling them again, knowing full well that a crash must come, but hoping to make a lucky hit during the fever. Then at last, either when calls come, supposing them ever to get to that stage, or when the circle of dupes is found to be exhausted, prices begin to waver, and every one rushes to sell, and of course things fall as rapidly as they rose, and then comes the crash.

Secondly. When some new large market is opened at home or abroad, in which extraordinary gains are realized by the first adventurers. Numbers then rush in, and over-production takes place, and the herd of adventurers is ruined.

Thirdly. A great and general failure of some great crop necessary for subsistence. The enormously increased price deranges the demand for other things, the sudden rise of price tempts great speculation, sure to be followed by enormous disasters.

Fourthly. A great derangement of the ordinary course of trade from some great general cause, such as the sudden commencement, or the sudden termination, of a war. The sudden cessation of demand for some articles deranges the calculations of the producers of them, and the sudden demand for large quantities of others raises their price suddenly, and gives rise to immense speculations in them, which are sure to be overdone and end in general ruin.

Each of these causes separately, if on a sufficient scale, may produce a Commercial Crisis; but as several of them may happen together, it will, of course, be proportionably intensified. And these effects are immensely increased by that abominable system of accommodation paper we have described under CREDIT, § 169-198. Bad speculation might no doubt cause serious disasters, but after all, these disasters would be limited to the resources of the speculators, and when they came to an end, further progress in ruin would be arrested. But when a herd of speculators can, by means of writing their names on bits of paper, extract funds without limit from bankers to speculate with, the area of ruin is vastly increased.

The object of the present article is to examine the history of these catastrophes, and to explain what has been the action of the Bank of England, to consider the opinions of various persons, who are regarded as authorities on the subject, and to investigate the principles and the policy of the Bank Act of 1844.

The Crisis of 1763.

It is a very favourite doctrine with some persons that Commercial Crises are chiefly caused by the abuse of the power of issuing notes by banks, and that if that power were taken away, such crises would be prevented.

For this purpose they advocate what they call the "Currency Principle" (CURRENCY PRINCIPLE).

But that this is no guarantee against a crisis is shewn among other instances by that of the year 1763. The termination of the war in 1763 was followed by an immense number of failures at Amsterdam, Hamburg, and other great cities abroad. They began on the 29th July, at Amsterdam, by the failure of two brothers, named Neufville, for upwards of 330,000 guineas; in a week they were followed by 30 other houses, and 14 at Hamburg. Discount rose from 3 to 7 per cent., and soon after there was a general failure of private credit, and no business was transacted except for ready money. In the beginning of August the bankers of Hamburg were so alarmed by the report that those of Amsterdam intended to allow the Neufvilles to fail, that they wrote them a most pressing letter to say that such a step would infallibly plunge all Europe into an abyss of distress, and that they had unanimously determined to suspend their own payments if this were not done. "The fate of the general commerce of all Europe is at present absolutely in your hands; determine, gentlemen, whether you should crush it totally, or support it." (*Annual Register; Gentleman's Magazine* for 1763.) This letter came too late, for the Neufvilles had been allowed to fail several days before it was written. And the consequences were very much as the Hamburg bankers had predicted. This crisis extended to England, and Smith says that the Bank of England extended its support to the merchants to upwards of a million.

The Crisis of 1783.

Ten years after the preceding crisis of 1763, another of a very severe nature took place in 1772, and the beginning of 1773. It extended over all the trading nations of Europe. The Bank of England came forward with judicious liberality to assist the merchants, and by this means the general destruction of credit was averted. In 1782, the unfortunate war with America was terminated, and immediately an immense extension of foreign commerce took place. The Bank greatly increased its issues; they rose from about £6,000,000 in 1780, to £9,600,000 in March, 1782. The directors then seem to have become alarmed, for they soon afterwards as violently contracted them; so that in December, 1782, they were reduced to £5,994,000. This course of conduct naturally produced a great demand for specie on the Bank, and a rapid drain set in, which in May, 1783, inspired the Directors with considerable alarm for the safety of the Bank. The Directors considered that if they continued the contraction of their issues, the drain must at length be arrested, and the exchanges turned in their favour by the returns for the exports. They refused to make any advances to Government on the loan for that year, but they did not make any demand for the repayment of the other advances to Government, which amounted to between nine and ten millions. They continued this policy till October, when their specie was reduced to £473,000; but at last the exchanges were turned in their favour, and specie began to flow in from abroad. As soon as the favourable symptoms had decidedly manifested themselves, the Directors advanced freely on the loan, and to the merchants. The doctrine which Mr. Bosanquet, one of the direc-

tors, stated guided them was this; that while a drain of specie is going on, their issues should be contracted as much as possible; but that as soon as the tide had given signs of ceasing, and turning the other way, it was then safe to extend them freely.

The Crisis of 1793.

The great crisis of 1793 may be considered as the first of those great catastrophes in modern times, of which we have a sufficiently distinct account for scientific purposes, and in which the Bank of England acted a decided part, which has been the subject of much criticism from persons who enjoy the highest name in finance.

We have, under **BANKING IN ENGLAND**, § 107, shewn how the seeds of disaster were sown by the monopoly of the Bank of England. Soon after the peace of Paris, in 1763, the industrial energies of the people burst forth in that brilliant career which they have ever since pursued. After they recovered from the interruption of the war with America, commerce, aided by the new means of production and carriage, received an extraordinary stimulus. In 1786, a memorable Treaty of Commerce and Navigation was concluded by Mr. Pitt with France, negotiated by Mr. Eden, afterwards Lord Auckland, providing for the entire abolition of all impediments to the free intercourse between the nations, and the reciprocal and entirely perfect liberty of navigation and commerce between the subjects of each party, in all and every the kingdoms, states, provinces, and territories subject to their majesties in Europe, for all and singular kinds of goods in those places." We may judge how lamentably the French Revolution threw back the progress of economic light, when we see that after a dreary period of mutual mischief, we have not even yet, by the Cobden Treaty of 1861, recovered the ground where we were in 1786!

To shew the astonishing progress of the commerce of the country from 1782 to 1792, we subjoin the following amounts of imports, exports, tonnage inwards and outwards, and the concomitant increase in the issues of the Bank of England. We may premise the valuations of the imports and exports indicate *quantities*, and not *values*, which custom was continued till 1798.

Imports.		Exports.		Tonnage.	
£		£		Inwards.	Outwards.
1782—10,341,628	...	18,009,458	...	777,258	851,512
1783—18,122,235	...	14,681,494	...	1,135,674	1,089,045
1784—15,272,877	...	15,101,491	...	1,215,702	1,050,487
1785—16,279,419	...	16,117,168	...	1,241,761	1,182,479
1786—15,786,072	...	16,300,730	...	1,264,356	1,236,219
1787—17,804,024	...	16,869,789	...	1,316,501	1,349,419
1788—18,027,170	...	17,472,238	...	1,558,172	1,540,686
1789—17,821,102	...	19,340,548	...	1,589,009	1,591,888
1790—19,180,886	...	20,120,121	...	1,705,975	1,548,207
1791—19,669,732	...	22,731,995	...	1,773,862	1,696,023
1792—19,659,358	...	24,906,200	...	1,891,711	1,739,300

Thus shewing that in the space of 10 years, the commerce of the country had more than doubled. Concomitantly with this increase of commerce, the issues of the Bank of England increased from an average of about six millions in 1782, to upwards of eleven millions in 1792. But this gives a very inadequate idea of the increase of paper currency in the country, as during this period the country banks multiplied to an enormous extent, filling all the country districts with paper cur-

rency, a very large portion of which was of a very dangerous and rotten nature, owing to the monopoly of the Bank, which prevented powerful and wealthy banks being founded.

We have no authentic statistics of the increase of banks, and their issues during this period, but Burke says that when he came to London in 1750, there were not more than 12 bankers out of London; in 1792 there were supposed to be little short of 400, and we may fairly assume that the amount of their issues may have multiplied in a somewhat similar proportion. Many of these country bankers were in the habit of issuing notes with various conditions for the purpose of guarding themselves against the consequences of a run for gold, when communication with the metropolis was so slow and difficult. The bankers at Newcastle issued notes which allowed interest to commence at some months after date, and then they were payable on demand. Those at Exeter and in the West of England issued notes payable at 21 days' sight, with interest commencing from the date of the note, and ceasing on the day of acceptance.

Subsequent experience enables us to perceive that an increase of commerce proceeding at such a pace was sure to end in a catastrophe. During the first ten months of 1792, the average of bankruptcies had been about 50, in November they suddenly rose to 105, by far the highest number that had ever been known in a single month. In December they were only 47, but in January 1793, they again increased to 77. The declaration of war in January 1793, gave a shock to credit, which was already staggering from over expansion. On the 15th of February, a house of considerable magnitude deep in corn speculations, failed, and on the 19th the bank refused the paper of Lane, Son, and Fraser, who stopped the next morning to the amount of nearly a million, involving a great number of other respectable houses. The panic now spread to the bankers. It began at Newcastle. The partners in the Newcastle banks were rich, but their funds were locked up, and when a run came upon them they were unable to realize, and stopped. The panic immediately spread throughout the country. It was computed that there were nearly 400 country banks at that time, of which 300 were much shaken, and upwards of 100 stopped payment.

This great pressure extended to the London bankers as well as to the country ones. One of them says that the extraordinary state of credit has obliged every person, connected with trade and money transactions, to gather in and husband every resource to meet all demands. That for six weeks every man of money and resources had been straining every nerve to support himself and immediate friends, and could not give that support to others, which they would have been disposed to do. All these circumstances naturally produced a demand on the Bank of England for support and discounts. But the bank being thoroughly alarmed, resolved to contract its issues. Bankruptcies multiplied with frightful rapidity. In January they were 77; in February 87; in March 105; in April 188; in May 209. The government urged the bank to come forward and assist credit, but they resolutely declined.

Sir Francis Baring (*Observations on the establishment of the Bank of England*) greatly blames

the directors for their conduct on this occasion. He says that they at first accommodated themselves to the crisis, but their nerves could not support the daily demand for guineas, and for the purpose of checking that demand, they curtailed their discounts to a point never before experienced; and that, if they determined to reduce their issues, it should have been gradual. Their determination, and the extent to which it was carried, came like an electric shock.

He says that there are three different causes for a great demand for guineas.

1. For export.

2. For the purpose of hoarding from want of confidence in the government, and in the circulating paper.

3. To enable country banks to discharge their demands, whilst confidence in the government, and in the bank, remained entire.

That every measure ought to be taken to prevent and mitigate the first cause, except prohibition or bankruptcy. We may reserve the second till we come to 1797. That the third ought to be viewed, not with indifference, but with a disposition to spend almost their last guinea. He shews from the state of the exchanges that it was quite impossible the guineas could have left the country, as the loss on exporting them to Amsterdam was £3 6s. 3d., and to Hamburgh £4 2s. 6d. per cent., and it was notorious that large quantities of gold and silver were coming in from France. This of course was owing to the immense issues of assignats that were taking place, and their continued depreciation. Under these circumstances, he says the directors acted quite wrongly, they ought to have seen that the guineas would have very soon come back to them, and that they ought, in fact, to have followed the precedent of 1783, which had been so successful.

When the bank adopted this perverse course, universal failure seemed inevitable. Sir John Sinclair remembered the precedent of 1697, when Montague had sustained public credit by an issue of exchequer bills, and thought that a similar plan might be followed in this crisis. The minister desired him to propose a scheme for the purpose, which he presented on the 16th of April. A committee of the House of Commons was immediately appointed. In the meantime a director of the Royal Bank of Scotland came up with the most alarming news from Scotland. The public banks were wholly unable, with due regard to their own safety, to furnish the accommodation necessary to support commercial houses and the country bankers. That unless they received immediate assistance from government, general failure would ensue. Numerous houses which were perfectly solvent, must fall, unless they could obtain temporary relief. Mr. Macdowall, M. P. for Glasgow, stated that the commercial houses and manufactories there, were in the greatest distress from the total destruction of credit. That this distress arose from the refusal of the Glasgow, Paisley, and Greenock banks to discount, as their notes were poured in upon them for gold.

The committee reported (*Parl. Hist.*, Vol. XXX., p. 740, &c.) that the general embarrassment of commercial credit was so notorious as to call for an immediate remedy without much examination. That the failures which had taken

place had begun with a run on those houses that issued circulating paper without sufficient capital, but had extended so as to effect many houses of great solidity, and possessed of funds ultimately much more than sufficient to answer all demands upon them, but which could not convert these funds into money in time to meet the pressure. That the sudden discredit of so large an amount of bankers' notes had produced a most inconvenient deficiency of the circulating medium. These circumstances had caused bankers to hoard to a great extent. That unless a circulating medium was provided, a general stoppage must take place. That they had requested a number of the most eminent merchants to meet and consider a plan of issuing Exchequer bills to a certain amount under proper regulations, who had unanimously agreed in the propriety of such a course, as the best remedy that could be devised.

The committee recommended that Exchequer bills to the amount of £5,000,000 should be issued under the directions of a board of commissioners appointed for that purpose, in sums of £100, £50, and £20, and under proper regulations. After considerable doubts were expressed by Mr. Fox and Mr. Grey, as to the policy of this extraordinary measure, which was unknown to the constitution, and might subvert our liberties, the bill passed. The committee set to work immediately. A large sum of money, £70,000, was sent down to Manchester and Glasgow on the strength of the Exchequer bills which were not yet issued. This unexpected supply coming so much earlier than was expected, operated like magic, and had, says Sir John Sinclair, a greater effect in restoring credit than ten times the sum would have had at a later period.

When the whole business was concluded, a report was presented to the Treasury. It stated that the knowledge, that the loans might be had, operated in many instances to prevent them being required. The whole number of applications was 338, and the sum applied for £3,855,624, of which 288 were granted, amounting to £2,222,000; 45 for sums to the amount of £1,215,100 were withdrawn, and 49 rejected. The whole sum advanced was repaid; two only of the parties assisted became bankrupt, all the others were ultimately solvent, and in many instances possessed of great property. A considerable part of the sum was repaid before it was due, and all the rest with the utmost punctuality. So much scrupulous care was taken to preserve secrecy as to the names of the applicants, that they were not known to that hour, except to the Commissioners and their own sureties. After all expenses were paid, the transaction left a clear profit to the government of £4,348.

Whatever were the prognostications of its futility and danger before it was done, its success was perfect and complete. The contemporary writers all bear witness to the extraordinary effects produced. Macpherson says, that the very intimation of the intention of the legislature to support the merchants, operated like a charm all over the country, and in a great degree superseded the necessity of relief by an almost instantaneous restoration of confidence. Sir Francis Baring concurs in this view, and adduces the remarkable success of the measure as an argument to shew the mistaken policy of the Bank.

The panic was at length happily staid. The failures up to July had been 932, in the remaining five months they were reduced to 372. This was, however, upwards of double the number that had ever happened in any year before. Gold continued to flow in, and during the last six months of 1793, and two following years, money became as plentiful as in time of peace, and 4 per cent. interest could scarcely be got.

All contemporary writers bear witness to the wonderful success of this expedient. After careful deliberation the Bullion Report warmly approved of it, censured the proceedings of the Bank of England, and especially cite it as an illustration of a principle which they laid down, that an enlarged accommodation is the true remedy for that occasional failure of confidence in the country districts to which our system of paper credit is unavoidably exposed.

Notwithstanding all this weight of testimony in favour of the happy effects of this measure, some rigid doctrinaires afterwards condemned the proceeding as a violation of the true principles of Political Economy. Even some who helped to devise it, changed their opinion afterwards upon the subject. Thus Lord Sidmouth in 1811 (*Parl. Debs.*, Vol. XIX., p. 530) observed, that he was upon consideration inclined to doubt of its wisdom and policy. Lord Grenville also said (*Ibid.*, p. 534) that from experience and reflection he was convinced the measure was founded on wrong policy; as one of those who were concerned in the measure, he was perfectly ready to avow his error, for he was perfectly satisfied in his own mind that it was unwise and impolitic. And such would be the opinion of those who favour the policy of the Bank Act of 1844.

It appears to us that the reply to these objections is short and simple. In the first place, if it were a violation of the true principles of Political Economy, it immediately resolves itself into a question of loss of capital. It is quite easy to shew that all great errors in Political Economy are destructive of capital. They may be estimated in money. Was this measure a pecuniary loss to the country? But what would have been the loss to the country if it had not been adopted? Who can estimate the destruction of capital that would have ensued in the general wreck of public credit? It might have endangered the safety of the State. But there are other arguments which appear to us to be conclusive of its propriety. The general loss of credit was chiefly caused by a thorough want of confidence in the currency of the country. The miserable notes of the majority of bankers were utterly blown upon. The great desideratum was a sound currency. Now what was it caused such an unsafe currency to be in circulation? It was nothing but the unjustifiable monopoly of the Bank of England. It was this monopoly, which was itself the most flagrant violation of the true principles of Political Economy, which caused the bad character of the currency. Consequently the measure of the government in providing a currency in which people would have confidence, was merely a correction of the error which had produced these deplorable results. We fully acknowledge that as a general principle it is highly undesirable that the government should interfere in any way

whatever in commerce, but in this case it was a compensation of opposite errors, and no other course was possible under the circumstances.

On the Crisis of 1797, and the Suspension of Cash Payments by the Bank of England.

We have seen that the Bank in 1793 pursued a policy of restriction in a commercial crisis, which threatened to bring about a general overthrow of commercial credit, and which was only alleviated by the government stepping in in an abnormal manner, and supplying a currency in which people might have confidence. We have under BANKING IN ENGLAND, § 113—137, given a full detail of the circumstances which brought about the stoppage of cash payments in 1797. We have shewn that the Bank pursued exactly a similar course of excessive restriction as they did in 1793.

An event of such portentous magnitude as the suspension of cash payments by the Bank of England, of whose effects there had been no previous experience, could not fail to give rise to the most conflicting opinions as to the necessity of the measure, of the course of conduct of the Directors which led to it, and as to the policy which ought to have been adopted under the drain which occurred in the last week of February, 1797. Many men of eminence and ability changed their opinions in after times, when they came to look back upon the subsequent events. In examining this question, so as to form a just estimate of the conduct of the Directors, we must remember that they were not masters of their own policy. They were distracted by two antagonistic claims, both of which they conceived it impossible to satisfy at the same time—namely, that of the Chancellor of the Exchequer, and the demands of commerce. They considered that if they advanced to the government they must contract their issues to the merchants, and as the Minister was the more powerful and imperious party of the two, they were obliged to yield to his power.

Several of the Directors being examined before the Committees of Parliament, unanimously attributed the necessity of stopping payment to the enormous amount of their advances to government, and they gave it as their decided opinion, that if the government had repaid these advances as they ought to have done, this catastrophe would have been avoided. We may take it therefore as admitted on all hands, that if they had been repaid by government, they would have very greatly extended their advances to merchants. The real question then, is, considering that they were under such advances to government, would it have been prudent to have been more liberal in their accommodation to merchants?

Several of the Directors and eminent merchants were examined before the Committees of Parliament. Mr. Henry Thornton was very strongly of opinion that the excessive contraction of bank notes had produced the most injurious effects in shaking public credit of all descriptions. That the excessive reduction of notes had caused an unusually severe demand for guineas, and that the great public distrust was directed against the country Bank Notes, and that the Bank of England ought to have extended their issues, to supply the place of the country notes.

Mr. Walter Boyd, an eminent merchant, was very clearly of opinion that the restrictions upon the issue of notes by the Bank was the chief cause of the forced sale and depreciation of the public securities, and if the Bank had only maintained its issues at the same height as they were in December, 1795, the drain of specie from the Bank, as well as the embarrassments in the mercantile world, would have been avoided, and a great part of the fall which public securities had experienced would have been prevented.

Mr. George Ellison, who was secretary to an association of a great part of the country banks, considered that the quantity of the coin in the country was greater than it was in 1793, though a very considerable part was hoarded away, owing to the public alarms that were abroad. He attributed the great public distrust to the remembrance of the conduct of the Bank in 1793, when it suddenly contracted its discounts, just at the period when they were most wanted.

The Committee of the Lords called the attention of the House very strongly to these opinions, but they did not venture themselves to pronounce an opinion on their justness. The Committee of the Commons went considerably nearer towards approving of them. In the year 1810, the governor of the Bank being examined before the Bullion Committee, stated that after the experience of their policy of restriction, many of the Directors repented of the measure, and the Bullion Committee explicitly condemned the policy of the Bank both in 1793 and 1797.

The directors of the Bank, acting in the midst of such unprecedented circumstances and so tremendous an emergency, are entitled to have their conduct examined with all forbearance. But taking all these circumstances into consideration, we cannot fail to acquiesce in the opinion expressed by so many eminent bankers and merchants at the time, by the subsequent avowal of many of the Directors that experience had led them to repent of the policy they then pursued, and by the decided opinion of the Bullion Committee, that the policy pursued by the Bank in this momentous crisis was erroneous, and that the severe restrictions they attempted to place upon commerce, very greatly contributed to bring on the calamity by which they were subsequently overwhelmed. Nothing, in short, could be more unhappy than their regulations of the amount of their issues. When the exchanges were violently adverse, so that it was enormously profitable to export gold, they enlarged their issues to an extravagant extent, and when the exchanges were extremely favourable, so that gold was sure to flow in, they restricted them with merciless severity. The issues, which were £14,000,000 when the exchanges were against the country, were reduced to £8,640,250 when they had been for several months eminently favourable. It appears from the entire evidence in the reports, that it was this excessive restriction of notes which drained away their cash during the autumn of 1796, and if they had been more liberal in their issues, their vaults would have been much better replenished with cash.

This disaster was the second notable penalty which the country paid within four years for the unjustifiable monopoly of the Bank. Never was there a more unfortunate example of monopoly-

lizing selfishness; it would neither establish branches of its own in the country, nor would it permit any other private company of power and solidity to do so, whose credit might have interposed and aided in sustaining its own. Moreover, when a failure of confidence was felt in the country notes, it refused to supply notes of its own to supply their place. The power of issuing what plays so important a part in commerce was absolutely forbidden to wealthy companies, and left in an unbounded freedom to private persons, many of whom had no capital or property to support their issues, and whose credit vanished like a puff of smoke in any public danger. The Bank consequently was left to bear the whole brunt of the crisis, solitary and unsupported, and finally succumbed.

From the foregoing considerations, as well as the weight of authority on the subject, we can scarcely have any room to doubt that the suspension of cash payments was brought about, at that particular time, by the erroneous policy of the Directors. Moreover, the weight of evidence and opinion tends to shew that there was no necessity for their stopping when they did. Their treasure, it is true, was reduced to little more than a million, but that was more than twice what they had in 1783, and the exchanges were favourable to the country and gold was pouring in. On the 30th May, Mr. Manning stated in the House, that vast quantities of gold had flowed into the Bank, both from the country and from abroad. In August the Bank had upwards of four millions of treasure, and this continued steadily to increase till August, 1799. But we must in candour state that it appears open to much doubt whether any management, however skilful, could ultimately have saved them from such a disaster during some period of the war. Several of those who concurred in the measure at the time, after their judgment had been corrected by experience, expressed their regret at having done so; Sir Robert Peel, in 1844, said it was a "fatal" measure. Notwithstanding, however, the concurrence of so many weighty authorities—and this is peculiarly a case where great authorities carry much weight—we cannot help thinking that it was fortunate that it occurred at this early period. The alarm and dangers which preceded its stoppage were comparatively slight compared to those which menaced the country after that event. The mutinies in the fleet, the rebellion in Ireland, the enormous accumulation of troops on the heights of Boulogne flushed with victory, led by a more fortunate, though probably not a greater soldier than Hoche, and burning with zeal for the invasion of England, were dangers of such portentous magnitude as to render it to the last degree improbable that any paper currency convertible into gold could have survived them. That Montague was a greater and more successful financier than Pitt, can, we think, scarcely be doubted; and the carrying through the re-coinage of the silver, in the midst of so much public distress, was a financial operation, of which the audacity, skill, and success, must ever be regarded with admiration. But it must be remembered that the crisis in that reign lasted a much shorter time than the revolutionary war, and was never fraught with so much real danger to the independence of the country. At that period there was probably

no paper credit in the form of bank notes out of London, and William was at the head of a great European confederacy against one overgrown power, so that the circumstances of the two periods were in no way parallel, but rather, we may say, reversed. The confederacy against England at the latter period was far more menacing and formidable than the alliance against France. The fortunes of Venice, with the enemy at Chiozza, were scarcely at a lower ebb than those of the British Empire in 1798, and there seemed to be but one thing wanting to complete the destruction of the country—the loss of public credit. However great and invaluable are the blessings of a paper currency in time of peace, there does not appear to be any instance of its having successfully withstood the danger of invasion by a foreign enemy. Even in Scotland, where it had been confessedly conducted on a better system, and obtained the confidence of the country to a much greater degree, it could not have withstood the dread of invasion, if it had not been for the timely assistance of the Bank of England. And if it could not do so in that country, where the danger was remote, it is not probable that it could have done so in England, where not only it was of much inferior stability, but was the very part of the empire aimed at, and first exposed to danger. The constant power of producing public embarrassment by demands for gold would have been a powerful weapon in the hands of the enemy, in which they would have found many in this country to support them from political sympathy. This measure, therefore, removed one perpetual source of terror and alarm from the Ministry. The great depreciation of the currency, which took place some years afterwards, was not by any means a necessary consequence from such a measure, but was produced by the infatuated perversity, both of the Government and of the Bank of England, who with fatal obstinacy persisted in a system combining almost every false principle that could be thought of. Upon the whole, then, we think that the suspension must have taken place sooner or later, and therefore it was probably advantageous for the country that it did occur so early in the struggle.

The Crisis of 1825.

The circumstances which led to the great depreciation of the Bank Note and the appointment of the Bullion Committee in 1810, its report and its rejection by the House of Commons in 1811, the subsequent increased depreciation of the Bank Note, and the fearful monetary disasters in 1815-16-17, and the crisis of 1819, followed by the total suspension of cash payments by the Bank, and the circumstances preceding the great crisis of 1825, are fully detailed under **BANKING IN ENGLAND** and **BULLION REPORT**. We shall therefore not repeat here the details given under these articles, but shall confine ourselves to an examination of the conduct of the Bank of England during the crisis.

The exchange on Paris began to decline at the close of 1823. The last time it was above par was in June, 1824, and it steadily declined till November. On the 18th of that month, Mr. Ward, one of the Directors of the Bank, said that the demand for bar gold shewed that it was being exported. The following table shews that

the treasure in the Bank had been steadily and rapidly declining ever since January, 1824. Now when it was known that immense sums were leaving the country and the exchange falling lower, what did the Bank do? It *increased* its issues. When every consideration of common sense and prudence demanded a rapid *contraction*, when the speculative fever was plainly declared, instead of doing what they could to check it, they added fuel to the flames, in defiance of the principles of the Bullion Report. The following table exhibits the state of their treasure and their issues from the end of 1823 to that of 1825:—

COIN AND BULLION. NOTES ISSUED.			
	1823.	£	£
Dec. 27	14,049,860	17,551,530	
1824.			
Jan. 31	18,527,850	20,280,820	
Feb. 28	18,800,890	19,786,960	
March 27	18,871,280	19,156,990	
April 24	18,406,550	20,645,600	
May 29	12,887,840	19,149,370	
June 26	12,809,140	19,158,500	
July 31	11,814,720	21,996,640	
Aug. 28	11,763,550	20,293,320	
Sept. 25	11,811,500	18,715,290	
Oct. 30	11,423,430	21,042,020	
Nov. 27	11,323,760	20,850,260	
Dec. 24	10,721,190	19,447,390	
1825.			
Jan. 29	9,490,420	21,960,330	
Feb. 26	8,857,730	21,060,140	
March 26	8,152,340	19,611,340	
April 30	6,659,780	20,536,630	
May 28	6,181,300	19,653,010	
June 25	5,482,040	18,372,360	
July 30	4,174,890	20,794,720	
Aug. 27	3,626,570	19,290,570	
Sept. 24	3,496,690	10,009,780	
Oct. 29	3,150,960	18,692,220	
Nov. 26	3,012,150	17,464,890	
Dec. 31	1,260,890	25,709,420	

The speculative fever was at its height in the first four months of 1825, when it had spent its force, and came to an end in the natural course of things. Vast numbers of persons who had embarked in these wild schemes, with the hope of selling out of them before the inevitable crash came, were now called upon for their subscriptions. Vast quantities of capital having been absorbed had the inevitable effect of raising the rate of interest. Successive calls compelled the weaker holders to realize, and while the calls for ready money were immediate and pressing, the prospect of returns was distant and uncertain. Accordingly, after May and June, the decline was rapid. The South American loans and the Mexican mining schemes proved almost universally total losses. In the meantime that *slack water*, which Mr. Tooke observes always precedes a great turn in the tide of prices, took place. The increased prices of commodities which speculation had caused, could no longer be kept from being realized, and prices fell as rapidly as they had risen. The obligations of the speculators now became due, and the sale of commodities had to be forced to meet them. Universal discredit now succeeded, goods became unsaleable, so that stocks, which are usually held in anticipation of demand, were wholly unavailable to meet the pecuniary engagements of the holders. Merchants who had accepted bills for only half the value of the goods consigned to them, were unable to realize even that half, or even obtain advances on security of

the bills of lading. The advances already made were peremptorily called in. The usury laws, which limited interest to 5 per cent., greatly aggravated the distress; nobody would lend money at 5 per cent. when its real value was so much greater. Hence numbers, who would have gladly paid 8 or 10 per cent. interest, were obliged to sell goods at a difference of 30 per cent. for cash, compared with the price for time.

The bankers in the country had followed exactly in the steps of the Bank of England. While the fever was raging, they had increased their issues and liabilities by speculative advances on commodities. The persons to whom these advances had been made had no means of repaying them, but the "promises to pay" the bankers had lent them still remained in circulation, and must be met. The bankers foresaw the coming storm, and endeavoured to provide funds to meet it. The Bank of England itself had its eyes opened to the suicidal career it was following in May, and then endeavoured violently to contract its issues. This sudden change of policy only aggravated the general feeling of discredit. During the autumn everything portended the approach of the impending catastrophe.

The inevitable *contre coup* of the undue expansion of credit in the spring began to press heavily on the country banks in the autumn of 1825. It gradually became severer during the month of November. As the crisis was evidently approaching at the end of November, the papers discussed the probable policy of the Bank, and it was generally anticipated that it would continue to contract its issues, and let the evil work its own cure by the fall of the houses which had been imprudent in their speculations. On the 29th November it was announced in the London papers that Sir William Elford's—a large bank at Plymouth—had failed, and that was immediately followed by the fall of Wentworth and Co., a great Yorkshire firm. By the 3rd of December the panic had fairly set in, and the whole city was thrown into the most violent state of alarm and consternation. On that day (Saturday) some of the Directors of the Bank were informed that the house of Pole, Thornton and Co., one of the leading city banking houses, was in difficulties, and at a hurried meeting held on the following day, it was decided to place £300,000 at their disposal on proper security. During that week the utmost attention was paid to the position of that house, which fought it through the following week, though it was privately known to the governor that if the storm did not abate they must fall on the Monday morning. Instead of abating, however, it became more furious than ever on the Monday. Pole and Co. stopped payment, and the ruin of 40 country banks which were connected with them was expected.

The fall of this great banking house was the signal for a run upon all the London bankers. Another great house of equal magnitude, Williams, Burgess and Co. and three or four more, gave way, and spread universal consternation among the country banks, 63 of which succumbed to the crisis, though a considerable number paid 20s. in the pound, and eventually resumed business.

The Bank at first maintained a policy of vigorous restriction, in which they were supported by public opinion. Mr. Huskisson said afterwards

in the House of Commons, that during 48 hours (Monday and Tuesday, December 12 and 13,) it was impossible to convert into money to any extent the best securities of the government. Persons could not sell Exchequer Bills, nor Bank Stock, nor East India Stock, nor the public funds. Mr. Baring said that men would not part with their money on any terms, nor for any security. The extent to which the distress had reached was melancholy to the last degree. Persons of undoubted wealth and real capital were seen walking about the streets of London not knowing whether they should be able to meet their engagements for the next day. The Directors thought that they would certainly have to stop payment, and sounded the government as to a restriction act. But the government would not hear of such a thing, and it was resolved that the Bank should pay away its last guinea and its last shilling.

On the 14th December Mr. Vincent Stuckey, an eminent West country banker, wrote to the Directors recommending them to issue a million of notes a day. That the discredit was directed against the country bank paper, and all they would have to do would be to exchange their powerful credit for the tottering credit of the country banks, and they would not increase the total of the circulation. Whether it was in consequence of this advice or not it does not appear, but they adopted this plan. On Wednesday, the 14th, the Exchange had decidedly turned in favor of the country in consequence of the pressure, and the Bank totally changed its policy. From a policy of the most stringent restriction, they discounted with the most enormous profuseness. They made immense advances on Exchequer Bills and securities of all sorts. Mr. Harman says (*Report Bank Charter, 1832, p. 154*):—"We lent it by every possible means, and in modes we had never adopted before; we took in Stock as security, we purchased Exchequer Bills, we made advances on Exchequer Bills, we not only discounted outright but we made advances on deposit of bills of exchange to an immense amount, in short by every possible means consistent with the safety of the bank; and we were not on some occasions overnice, seeing the dreadful state in which the public were, we rendered every assistance in our power." This audacious policy was crowned with the most complete success—the panic was stayed almost immediately. On Friday evening, the 16th, the *Courier* said:—"We are happy to think that the worst is over, though there are still great demands upon the Bank, particularly from the country. The same paper, on the next day, the 17th, said:—"Although public confidence is on the return in the metropolis, and things are resuming their usual course, yet, as might be expected, this has not yet communicated itself to the country." In fact, the London panic was completely allayed in this week by the profuse issue of bank notes. Between Wednesday, the 14th, and Saturday, the 17th, the bank issued upwards of £5,000,000 of notes!

The waves of discredit, however, were propagated through the country, and throughout the following week the demand still continued great from the London bankers for their country correspondents. During the course of it, it came to the remembrance of some of the Directors that there

was a chest of their £1 notes which had never been used. As soon as this was discovered, it occurred to them that they might be used to stay the panic in the country districts, and the discredit of the country bank notes. Upon communicating this idea to the London bankers it was eagerly approved of, and the sanction of the Government was asked for the experiment. The Government consented, and the notes were sent off to the country bankers without delay, and produced instantaneous relief. "At Norwich, when the Gurneys shewed upon their counter so many feet of bank-notes of such a thickness, it stopped the run in that part of the country."

During the week ending the 17th, the Mint had been kept constantly at work day and night, but notwithstanding all its efforts it could not supply coin with sufficient rapidity, so that it kept continually diminishing. On the Saturday the coin and bullion in the Bank scarcely exceeded one million, but the profuse issue of notes had stayed the panic, and on Saturday evening the Directors were able to assure the ministry that all danger was over. The great pressure had produced the effect which necessarily results from such circumstances. The great increase in the value of money here had turned the exchanges in favour of the country. The Directors expected remittances from Paris, and they fortunately came sooner than was expected. On Monday, the 19th, about £400,000 came from France, and the demand having sensibly abated, the supplies from the Mint fully equalled the sums drawn out of the Bank,—or rather exceeded them. By the 24th the panic was completely allayed all over the country, and the amount of the £1 notes issued was under £500,000, and by the beginning of 1826 the credit of the banking world was completely restored.

The circumstances of this famous crisis are the most complete and triumphant example of the unquestionable truth of the principles of the Bullion Report, and of Sir Francis Baring already quoted. When the drain of treasure from the Bank was severe and unceasing, and notoriously for exportation on account of foreign loans, the Bank with infatuated obstinacy had increased their issues instead of contracting them, in defiance of the clearest warnings of the Bullion Report. After six months' continuance in this fatal course, they at last reversed their course and contracted them. In July 1825, after a steady and notorious drain had been going on for exportation, their issues were upwards of three millions greater, when their treasure scarcely exceeded four millions, than when it had been 14 millions. In the course of the autumn the drain for exportation ceased, but began to be severe for internal purposes. The demand for gold was entirely to support the tottering credit of the country bank notes. Now, as the country bankers were only too glad to withdraw their own notes and substitute gold for them, there was not the slightest danger of an increase of Bank of England notes adding to the general amount of the paper currency in the country, but just the reverse. Consequently it was just the precise case in which Sir Francis Baring and the Bullion Committee said it was the duty of the Bank of England to extend its issues to support general credit. There was not the smallest danger that an extension of

issues would, under such circumstances, turn the foreign exchanges against the country. The character of the demand was declared in the most unmistakable way. On Thursday, the 15th, a meeting of merchants and others took place at the Mansion House, when it was stated that Sir P. Pole and Co. had a surplus of £170,000 after payment of all claims against them, besides large landed property belonging to Sir Peter Pole, and about £100,000, the private property of other members of the firm. Williams and Burgess had enough to pay 40s. in the pound. Now if the course which was adopted on the Wednesday had been adopted on the Monday, the whole of that terrific crisis would have been saved. All contemporary evidence proves that it was this profuse issue of £5,000,000 in a few days that stayed the panic. If they had persevered in the restrictive policy for three days more, the total and entire destruction of commercial credit would infallibly have ensued. In short if they had followed the precedents of 1793 and 1797, so strongly condemned by the Bullion Report, all credit would have been destroyed; they followed the principles laid down in the Bullion Report, and the country was saved.

With respect to the issue of the £1 notes, Mr. Horsley Palmer, the Governor of the Bank, was asked (*Report on Bank Charter, 1832*)—Q. 99: "Was not the difficulty of which you have been speaking in the year 1825, when there was such a run upon the Bank, unconnected with any foreign demand, in fact, met by the re-issuing of the £1 notes?—At Norwich it was, and I believe at one or two other places." Q. 117: "Can there be any doubt that that issue of £1 notes made in 1825 had a most beneficial effect upon the transactions of this metropolis?—I believe that it proved beneficial in stopping the run upon the country bankers." After describing the effect of the fall of Pole and Co. upon commercial credit, in questions 607-616, Mr. Palmer said that the danger to the Bank was in a great degree averted by the issue of its £1 notes, which were a very material aid to it when it was difficult to get coin from the Mint in sufficient quantities. Mr. Stuckey, the eminent banker, said that if the Bank had not done as they did, most of the banks in London as well as the country must have stopped. Mr. Jeremiah Harman was asked—Q. 2,232: "The Bank of England issued £1 notes at that period—was that done to protect its remaining treasure?—Decidedly, and it worked wonders. Do you think that the issuing of the £1 notes did avert a complete drain?—As far as my judgment goes, it saved the credit of the country." Mr. G. W. Norman was asked—Q. 2,479: "Do you not think that with a reduced treasure in the Bank, accompanied with embarrassment in commerce, and workmen thrown out of employment, a prudential regard to the safety of the Bank would cause that to be considered a period of danger to the Bank?—Certainly I should say it would be an anxious period for the Bank; but I think we have generally seen in periods of commercial distress the credit of the Bank rather rose higher above the common credit of other bodies of individuals than at any other time. Why do you think so?—I may refer particularly to the example of 1825; at that time the Bank had the means of increasing its issues prodigiously;

at the moment the crisis took place there was nothing like a want of credit in the public mind with respect to the Bank. Do you suppose that the £1 notes of the Bank at that time stopped the panic?—To a certain degree." Even Mr. Samuel Jones Loyd (now Lord Overstone) whose opinions on Currency we have examined at great length under CURRENCY, testified as to the good effect of the issue of the £1 notes. Q. 3,446: "Do you conceive that any part of what has been called the commercial discredit in the year 1825, consisted in a doubt of the ultimate solvency of the Bank of England?—Not the slightest; and the best proof of that is, that when they had no further sovereigns that they could issue, they luckily found a large quantity of £1 notes, and the public were perfectly satisfied with the £1 notes."

On the Crisis of 1847.

The great crisis of 1825 is the most striking proof of the truth of the fundamental principles of the Bullion Report, one of which was that it was inexpedient to impose a numerical limit on the issues of the Bank, because there were occasional crises to which our system of paper credit was subject, when a liberal issue of Bank notes was indispensable to prevent general commercial ruin. After many long controversies we have seen that the Directors of the Bank were brought to admit the principle that the issues of notes should be regulated by the state of the Foreign Exchanges. We have shewn under BANKING IN ENGLAND, § 218, the rules proposed by the Directors for controlling their issues by the Exchanges, and how utterly futile they were. The mismanagement of the Directors brought the Bank into difficulties in 1837 and 1839, but these crises are not sufficiently important in a scientific point of view to demand a separate notice. The repeated instances of mismanagement, however, turned the attention of writers to devise some plan by which the Bank should be compelled to maintain itself in a position of solvency, and a plan was adopted by Sir Robert Peel, very much in conformity with the ideas of Colonel Torrens, Mr. Samuel Jones Loyd (Lord Overstone), and others, which was carried into effect by the famous Bank Act of 1844. The details of this Act are fully explained in BANKING IN ENGLAND, § 235. We have shewn there that it imposed a definite limit on the issues of the Bank, being allowed to issue notes to the amount of £14,000,000 based on public securities, together with an amount equal to the quantity of coin they possessed in their vaults. This theory was based upon what is called the Currency Principle, which shortly stated is this:—That Bank notes payable to bearer on demand are currency, as distinguished from all other forms of paper credit. That when Bank notes are permitted to be issued, they ought to be exactly equal in quantity to the bullion they displace, and that the quantity of notes in circulation ought always to be exactly equal to what the coin would be if there were no notes. Such was the theory the promoters of the Act intended to carry out. But we have shewn under BANKING IN ENGLAND, § 236-7, and CURRENCY PRINCIPLE what a complete delusion it is to suppose that the Act does really carry it out. However, that is not the most important point which affects us at

present. The chief point we have to consider at present, is the policy of imposing a definite numerical limit on the issues of the Bank, in diametrical opposition to the opinions of the most eminent banking authorities up to 1840.

The intention of the framers of the Act was that, as bullion left the country, the issues of the Bank in the hands of the public should be gradually diminished, so as to make money more valuable, and arrest the drain. After the passing of the Act of 1844, from various circumstances, there was a continual increase in the bullion in the Bank until August, 1846, when it reached a maximum of 16 millions, and the rate of discount was 3 per cent. The following figures shew the notes held by the public, and in reserve, the total amount of bullion, and the rate of discount, from August, 1846, to the crisis of April, 1847.

BANK NOTES.			Total Amount of Bullion.	Rate of Discount.
1846.	Issued.	In Reserve.		
	£	£	£	
Aug. 29	20,426,000	9,450,000	16,866,000	3
Oct. 8 ..	20,551,000	8,809,000	15,817,000	3
Nov. 7 ..	20,971,000	7,265,000	14,760,000	3
Dec. 19 ..	19,549,000	8,864,000	15,168,000	3
1847.				
Jan. 9 ..	20,887,000	6,715,000	14 00	
" 16 ..	20,679,000	6,546,000	12 00	3½
" 30 ..	20,469,000	5,704,000	12 00	4
Feb. 20 ..	19,482,000	5,917,000	12 00	4
Mar. 6 ..	19,279,000	5,715,000	11 00	4
" 20 ..	19,069,000	5,419,000	11 00	4
April 3 ..	18,855,000	3,700,000	10 00	4
" 10 ..	20,243,000	2,558,000	8 30	5

When the public saw the whole banking resources of the Bank reduced to 2½ millions, a complete panic seized the Directors and the public. The Directors adopted measures of the greatest severity to check the drain. Discount out of doors on the best bills rose to 10 and 12 per cent. In consequence of these measures bullion began to flow in, and continued to do so till the end of June, when it was upwards of 10½ millions. At the end of June, however, a new drain began, which continued steadily till after the great crisis in October. At the end of July, the Bank had £9,331,000 of bullion and coin, the notes issued were £18,892,000, and those in reserve were £3,775,000. They had been so severely blamed in April for not taking timely precautions to check the drain, that they now proceeded with greater energy. Discount was raised to 5½, being 1½ per cent. higher than when they had a similar amount of reserve in April.

The crisis of 1847 began in August. There had undoubtedly been a long period during which houses that had been insolvent for years had maintained themselves afloat by the low rate of discount. But besides that, the extraordinary rise in the price of wheat in the spring had led to enormous speculation in corn. The price of wheat had ranged from 70s. to 77s. from January to April. In May the average rose to 105s., a considerable quantity being sold at a much higher figure than that. It did not vary much during June. These high prices, of course, attracted an immense amount of supplies; and during July

the price gradually fell to 76s. The cargoes, however, purchased at the prices of the spring, now arrived. Besides that, the new crops began to come in, and were found to be of excellent quality; and thus the price was still further lowered. The frightful catalogue of failures began in the first week of August. During the first week they were about £1,200,000. In three weeks they amounted to £3,027,000. Week after week followed, each one increasing in severity, until the total exceeded £15,000,000. The increasing severity of the crisis had its usual effect of turning the exchanges in favour of the country, and by the end of September bullion began to flow in.

By the 2nd of October, the reserve was reduced to £3,409,000, with the crisis becoming severer every day. The Bank began to perceive that it was time for them to think of their own safety. On that day they gave notice that the minimum rate would be 5½ on all bills falling due before the 15th October, and they refused to make any advances on stock or exchequer bills. This last announcement created great excitement on the Stock Exchange. The town and country bankers hastened to sell their public securities, to convert them into money. The difference between the price of Consols for ready money and for the account of the 14th October, shewed a rate of interest equivalent to 50 per cent. per annum. Exchequer bills sold at 35 per cent. discount. On the 16th October the rate of discount varied from 5½ to 9 per cent. At this time the bullion was £8,431,000; the notes issued £19,359,000; and in reserve £2,630,000.

The following week, from Monday the 18th to Saturday the 23rd, was the paroxysm of the crisis. On Monday the Royal Bank of Liverpool, with a paid-up capital of £800,000, stopped payment, which caused the funds to fall 2 per cent. This was followed by the stoppage of the North and South Wales Bank, also of Liverpool, the Liverpool Banking Company, the Union Bank of Newcastle, heavy runs on the other banks of the district, and other bank failures at Manchester and in the West of England. As the whole commercial world knew that the resources of the Banking department were being rapidly exhausted, a complete panic seized them. Private discounts ceased. At Liverpool bills of the best houses, bearing the endorsement of the Bank of France, and having only three days to run, were refused discount at the branch of the Bank of England. No one would part with the money or notes they possessed. The most exorbitant sums were offered to merchants, and refused, for their acceptances.

The continued and ever increasing severity of the crisis caused deputation after deputation to be sent to the Government, to obtain a relaxation of the Act. For a long time they were unsuccessful, the Ministry clinging with obstinacy to their pet theory of currency. At last it became evident that matters could go on no longer. Ruin awaited the whole commercial community. On Saturday, the 23rd, the Ministry found that the Act must be abandoned, and communicated this determination to the Directors, who immediately acted upon it, and discounted freely at 9 per cent. The letter itself was not actually sent till Monday, the 25th. It stated that the Government

expected that the pressure which had existed for some weeks would have passed away like the one in April had done, by the operation of natural causes. That, being disappointed in this hope, they had come to the conclusion that the time had come when they ought to attempt, by some extraordinary and temporary measure, to restore confidence to the mercantile community. That for this purpose they recommended the Directors of the Bank of England, in the emergency, to enlarge the amount of their discounts and advances on approved security; but that, in order to restrain this operation within reasonable limits, a high rate of interest should be charged, which, under the circumstances, should not, they thought, be less than 8 per cent. That if such a course should lead to any infringement of the law, they would be prepared to propose to Parliament, on its meeting, a bill of indemnity. This letter was made public about one o'clock on Monday, the 25th; and no sooner was it done so, than the panic vanished like a dream! Mr. Gurney stated that it produced its effect in ten minutes! No sooner was it known that notes *might* be had, than the want of them ceased! Not only did no infringement of the Act take place, but the whole issue of notes in consequence of the letter was only £400,000; so that, while at one moment the whole credit of Great Britain was in imminent danger of being totally destroyed, within one hour it was saved by the knowledge that notes *might* be had, and the actual issue of £400,000!

The extraordinary and disastrous state of public credit at this period may be judged of by the aid afforded by the Bank of England to different establishments from the 15th September to the 15th November, as follows:—

1. It advanced £150,000 to a large firm in London, who were under liabilities to the extent of several millions, on the security of debentures of the Governor and Company of the Copper Miners of England, which prevented them stopping payment.
2. It advanced £50,000 to a country banker, on the security of real property.
3. It advanced £120,000 to the Governor and Company of Copper Miners, which prevented them stopping payment.
4. It advanced £300,000 to the Royal Bank of Liverpool, on the security of bills of exchange, over and above their usual discounts; but this was inadequate, and the bank, having no further security to offer, stopped payment.
5. It advanced £100,000 to another joint stock bank in the country.
6. It advanced £130,000 on real property to a large mercantile house in London.
7. It advanced £50,000 on bills of exchange to another mercantile house, on the security of approved names.
8. It advanced £50,000 on bills of exchange to a joint stock bank of issue, which soon after stopped payment.
9. It advanced £15,000 on real property to another mercantile house in London.
10. It saved a large mercantile house in Liverpool from failing, by forbearing to enforce payment of £100,000 of their acceptances falling due.
11. It assisted another very large joint stock bank in the country by an advance of £800,000 beyond its usual discount limit.

12. It advanced £100,000 to a country banker on real security.

13. It advanced to a Scotch bank £200,000 on the security of local bills, and £60,000 on London bills.

14. It assisted another Scotch bank by discounting £100,000 of local and London bills.

15. It advanced £100,000 to a large mercantile house in London, on approved personal security.

16. It assisted a large house in Manchester to resume payment, by an advance of £40,000 on approved personal security.

17. It advanced £30,000 to a country bank on real property.

18. It assisted many other houses, both in town and country, by advances of smaller sums on securities not usually admitted; and it did not reject, in London, any one bill offered for discount, except on the ground of insufficient security.

The far larger portion of this assistance was given before the 23rd October.

On the meeting of Parliament the Chancellor of the Exchequer moved for a committee to enquire into the causes of the recent commercial distress, and how far it was affected by the Act of 1844. He spoke of the panic in the spring. He said that he had seen no reason to change the opinion he had then expressed, that it was mainly owing to the imprudence of the Bank, which, having full warning of the various demands it would have on it, was too tardy in raising the rate of discount, and had lent out, over the period when the dividends became payable, the money they had provided for that purpose, so that they were not in possession of adequate funds when they were required. The low state of their reserve then excited consternation. The Bank then took the severe step of reducing the amount of discounts. They pulled up as suddenly as they had unwisely let out their reserve before. With respect to the panic of October, he said that the severe pressure in the money market had abated when the bank failures in Liverpool and the North of England took place, which renewed the alarm. After describing the great pressure on the country banks, he said—"The Bank of England were pressed directly for assistance from all parts of the country, and indirectly through the London bankers, who were called upon to support their country correspondents. The country banks required a large amount of notes to render them secure against possible demands; not so much for payment of their notes, as of their deposits. Houses in London were applying constantly to the Bank for aid. Two bill brokers had stopped, and the operations of two others were nearly paralysed. The whole demand for discount was thrown upon the hands of the Bank of England. Notwithstanding this, as I said before, the Bank never refused a bill which it would have discounted at another time; but still the large mass of bills which under ordinary circumstances are discounted by bill brokers could not be negotiated. During this period we were daily, I may say hourly, in possession of the state of the Bank. The Governor and Deputy-Governor at last said they could no longer continue their advances to support the various parties who applied to them; that they could save themselves, that is, they could comply

with the law; but that they could not do so without pressing more stringently on the commercial world. At this crisis a feeling as to the necessity of the interposition of Government appeared to be generally entertained; and those conversant with commercial affairs, and least likely to decide in favour of the course we ultimately adopted, unanimously expressed an opinion, that, if some measures were not taken by the Government to arrest the evil, the most disastrous consequences must inevitably ensue. Evidence was laid before the Government, which proved, not only the existence of severe pressure from the causes I have stated, but also that it was aggravated in a very great degree by the hoarding, on the part of many persons, of gold and Bank notes to a very large extent, in consequence of which an amount of circulation, which under ordinary circumstances would have been adequate, became insufficient for the wants of the community. It was difficult to establish this beforehand, but the best proof of the fact is in what occurred after we interfered. As soon as the letter of the 23rd October appeared, and the panic ceased, thousands and tens of thousands of pounds were taken from the hoards, some from boxes deposited with bankers, although the parties would not leave the notes in their banker's hands. Large parcels of notes were returned to the Bank of England, cut in halves, as they had been sent down into the country; and so small was the real demand for an additional quantity of notes, that the whole amount taken from the Bank when the unlimited power of issue was given was under £400,000. The restoration of confidence released notes from their hoards, and no more were wanted; for this trifling quantity of additional notes is hardly worth notice. * * * Parties of every description made applications for assistance to us, with the observation, 'We do not want notes, but give us confidence.' They said, 'We have notes enough, but we have not confidence to use them; say you will stand by us, and we shall have all that we want; do anything, in short, that will give us confidence. If we think that we can get Bank notes, we shall not want them. Charge any rate of interest you please; ask what you like.' (*Mr. Spooner*, "No! no!") "I beg pardon of the honourable gentleman, but I may be permitted to know what was actually said to me. I say that what I have stated was the tenor of the applications made to me. Parties said to me, 'Let us have notes; charge 10, 12 per cent. for them; we don't care what the rate of interest is. We don't mean indeed to take the notes, because we shall not want them; only tell us that we can get them, and this will at once restore confidence.' We have been asked what was the change of circumstances which induced us to act on Saturday when we declined acting a day or two before. I reply that the accounts we received on Thursday, Friday, and Saturday, were of a totally different description from those that were previously brought us. It was on Saturday, and not before, that this conviction was forced upon us; and it was not till then that we felt it necessary to sanction a violation of the law." The persons applying generally said that it was necessary to place a limit on the amount to be authorized, which they proposed should be two or three

millions; but the Government thought the limit should be placed on the rate of interest, and this was the method adopted. There can be no doubt whatever of the soundness of this opinion. If the Bank had been limited to the paltry sum of two or three millions, it would probably have gone but a little way to stay the panic, or the demand for hoarding. But when everybody knew that they might have notes at a high rate, they did not apply for them, unless they really required them. We have already shown that Sir Robert Peel entirely approved of the conduct of the Government, which was a distinct repudiation of the currency principle. We have given a long extract from Sir Robert Peel's speech under **BANKING IN ENGLAND, § 246.**

On the meeting of Parliament, both houses appointed committees to inquire into the causes of the commercial distress, and the working of the Act of 1844. Before the Committee of the Commons, Mr. Adam Hodgson, a Director of the Bank of Liverpool, gave it as his decided opinion that, if the Act had not been suspended, the Bank of England would have stopped payment. Mr. Samuel Gurney stated that he was quite satisfied there were at least £4,000,000 of notes hoarded from panic, and alarm that notes could not be got at all. He gave the experience of his own firm to illustrate the nature of the crisis. On Saturday, the 23rd, owing to the feeling of alarm that it would not be possible to get circulating medium, they considered it prudent to negotiate a loan for £200,000, which was done at 9 per cent. On the Monday the feeling became still more intense; both from the country and from London there was a general rush to get notes while they were to be had. The firm made an application for a similar amount on Monday, and were told that they should have an answer by two o'clock. Before that time, however, the Government letter came out, and the orders for money were very generally withdrawn. Sums of money were offered them; and before the week was over they had to go to the Bank, to ask them, as a favour, to take back the money they had lent. He was of opinion that the crisis would have been mitigated if the letter had come out sooner. He stated that at first his opinion had been in favour of the Act, but, after seeing its operation in April and October, his opinion had decidedly changed and become adverse to it. He said that, when there was a panic, the only cure was a liberal issue of notes.

Mr. Loyd (Lord Overstone) was of opinion that the Act of 1844 had no effect whatever in causing or aggravating the pressure in April or October; that the course pursued by the Bank from January to April was extremely erroneous and detrimental to the public interest, and was only stopped by the positive provisions of the Act; and that, if that system of procedure had not been stopped, it must have ended in the most disastrous consequences. The bullion in the Bank would have been greatly diminished, and the pressure far more severe, if it had been put off longer. He, however, under the circumstances, approved of the issue of the Government letter to allay the panic, which, he said, was not amenable to the principles of reason. He considered the issue of the letter to have been quite successful.

The Committee of the Commons presented their report on the 8th of June, 1848. It entered into no philosophical examination of the correctness, or the contrary, of the opinions of the witnesses. It aspired to and attained to no higher function than acting as a kind of preface to the mass of evidence, but concluded by stating the opinion of the committee that it was not expedient to make any alteration in the Act of 1844.

The report of the Lords was a much more elaborate production, and is a proof of what has been often remarked of the superior capacity of the Lords as men of business to the Commons. It stated that the committee had come to the conclusion that the recent panic was materially aggravated by the operation of the Bank Act of 1844, and by the proceedings of the Bank itself. The operation of the Act had aggravated the panic by imposing a legislative restriction on the means of accommodation while a large amount of bullion was in the bank, and the exchanges were favourable. They traced the causes of the panic, and entirely approved of the issue of the Government letter. They refused to recognize the doctrine of Mr. Loyd, that "although the letter was a departure from the positive permission of the Act, it was not a departure from the principle of the Act." In section III. they said that the inflexible rule considered to be invariable and self acting, and adopted by the Legislature as connected with, and consequent upon, the separation of the Departments of Issue and Banking, and the regulations provided for both, is founded upon certain principles, which before they can be adopted demand very serious consideration. They then pointed out that some very material considerations enforced by the most eminent authorities of former times, had been entirely overlooked by the framers of the Act, and the supporters of the theory upon which it is founded, and said:—"Many other statements, authorities, and illustrations might be given, exemplifying the same principles, and proving the evil consequences of disregarding them; but enough has been stated to prove, in the judgment of the committee, that the inflexibility of the rule prescribed by the restrictive clauses of the Act of 1844 is indefensible, when equally applied to a state of varying circulation, and that its enforcement in 1847 was an aggravation of the commercial distress, and was therefore wisely set aside by the authority of the Government on the 23rd and 25th October." They then shewed that the same rule was not applicable to periods of an adverse and a favourable exchange, and shewed that the Act of 1844 errs in applying the same rule to these two different cases. They recommended that a discretionary relaxing power should be introduced, which should be exercised only during a favourable exchange.

The Crisis of 1857.

The crisis we have just been considering was the inevitable termination of a multiplicity of derangements of the proper course of commerce. No one conversant with commercial history could fail to foresee that the entanglements of so large a portion of the public with railway speculations, and the losses caused by the failure of the harvest must produce a crisis. We have seen that this crisis gave a fatal blow to the prestige of the

Bank Act of 1844, which was enacted in express contradiction to the opinions of the most experienced authorities of former times, whom it professed to follow. They had always protested against imposing a numerical limit on the issues of the Bank. The experience of the crisis of 1847, amply confirming that of 1793, 1797, and 1825, shewed that such restrictions cannot be maintained in the paroxysm of a great crisis without endangering the existence of the whole mass of commercial credit.

The crisis we are now going to describe was of a very different nature. It burst upon the world in the most unexpected manner. It gave no premonitory symptoms which were apparent to any but very watchful and experienced eyes; and when it did come, it revealed a depth of rottenness in the commercial world which appalled every one, and proved to be of much severer intensity than that of 1847.

The supporters of the Act were much crestfallen by its failure in 1847, but they took courage again after the Crimean war. The Act had been subjected to the test of a great commercial crisis and had failed. It was now subjected to the test of a war, and many of its opponents predicted that it would fail again; but it did not. Its effects during the Crimean war were probably salutary; but the war did not proceed to such a length as to test its powers severely. Peace was restored before the resources of the country were in any manner strained.

A very severe drain happened in the autumn of 1855, but the Bank, warned by previous experience, met it promptly and successfully. In April, 1855, discounts on three-month bills were $4\frac{1}{2}$, in May 4, and in June reduced to $3\frac{1}{2}$. In July the drain began, and continued with rapidity through August. On September 6th the rate was raised to 4, on the 13th to $4\frac{1}{2}$, on the 27th to 5. On October 4th it was raised to $5\frac{1}{2}$. The drain, however, continuing to increase in severity, discount was raised on the 18th October to 6 per cent. for two-month bills, and to 7 per cent. for three months. These rates continued till May 22nd, 1856, when it was reduced to 6 per cent. On the 26th it was reduced to 5 per cent., and on the 26th June to $4\frac{1}{2}$ per cent. This continued till October, when, a great demand again going on, the rate was, on the 1st, raised to 5 per cent. On the 6th it was raised to 6 per cent. for two-month bills and 7 per cent. for three-month bills. On November 13th the minimum for all bills was 7 per cent. On December 4th it was reduced to 6, and on the 18th to 6 per cent., and continued so till the autumn of 1857.

These rates were of course very much higher than the average ones of former times, and they were one ground of accusation brought by many against the Act. But, in truth, they were its very merits. The Directors had now learnt from experience, and it was these very variations which preserved the security of the Bank.

In August nothing seemed amiss to the public eye. "Things were then pretty stationary," said the governor of the bank—"the prospects of harvest were very good, there was no apprehension that commerce at that time was otherwise than sound. There were certain more far-seeing persons who considered that the great stimulus given by the war expenditure, which had created

a very large consumption of goods imported from the East and other places, must now occasion some collapse, and still more those who observed that the merchants, notwithstanding the enhanced prices of produce, were nevertheless importing as they had done successfully in the previous years. But the public certainly viewed trade as sound, and were little aware that a crisis of any sort was impending, far less that it was so near at hand."

The bullion at this time was £10,606,000, the reserve £6,296 000, and the minimum rate of discount $5\frac{1}{2}$, when on the 17th August, the bank entered into a negotiation with the East India Company, to send one million in specie to the East.

Things were in this state, when about the middle of September, news came of a great depreciation of American railroad securities. It was found that for a long time they had been carrying on an extravagant system of management, and paying dividends not earned by the traffic. The system had at last collapsed, and of course an enormous depreciation of their stock followed, to the amount of nearly 20 per cent. It was supposed that as much as eighty millions of this stock was held in England, and that the effects of this fall would be very serious. On the 25th of August, the *Ohio Life and Trust Company*, with deposits to the amount of £1,200,000, stopped payment. The panic spread throughout the Union. Discount rose to 18 and 24 per cent. On the 17th October, news came that 150 banks in Pennsylvania, Maryland, Virginia, and Rhode Island had stopped payment. The drain was then beginning to be severe on the Bank of England. On the 8th, the bullion was £9,751,000, the reserve £4,931,000, and discount was raised to 6 per cent. On the 12th, the rate at Hamburg was $7\frac{1}{2}$, and bullion was flowing towards New York; discount was then raised to 7 per cent. About this time, rumours strongly affecting the Western Bank of Scotland were abroad. On the 19th, discount was raised to 8 per cent. The commercial disasters were increasing in America. In one week the Bank of France lost upwards of a million sterling. The Bullion in the bank had sunk to £8,991,000, and the reserve to £4,115,000. Discount was raised to $7\frac{1}{2}$ in Paris, and to 9 per cent. at Hamburg. On the 26th a deputation from the Western Bank of Scotland applied for assistance, but the Bank was afraid to undertake so enormous a concern. The Borough Bank of Liverpool was also in difficulties, and after some time the Bank agreed to assist them to the amount of £1,500,000 on condition of their winding up. But the arrangements fell through in consequence of the Liverpool bank closing its doors before it was completed.

On the 13th October a general run took place on the New York banks, in consequence of the severe measures of restriction they were obliged to adopt to protect themselves. Eighteen immediately stopped, and soon afterwards, out of 63 banks, only one maintained its payments. This immediately reacted on Liverpool and Glasgow, which were much involved with American firms. By the 19th October the failures began to be numerous in this country. Uneasiness greatly increased in London. On the 28th the principal

discount house applied to the Bank for an assurance that they would give them any assistance they might require. On the 30th an express came for £50,000 sovereigns for a Scotch bank, part of £170,000, and £80,000 for Ireland. On the 5th November discount was raised to 9 per cent. The great house of Dennistoun, with liabilities of nearly two millions, stopped payment on the 7th, and the Western Bank of Scotland closed its doors on the 9th. Failures in London were rapidly on the increase. Purchases and sales of stock were enormous, much beyond what they had ever been before. The bullion in the Bank had sunk to £7,719,000, and the reserve to £2,834,000. On the 9th, discount was raised to 10 per cent. On the 10th November, a large discount house applied to the Bank for £400,000. The Bank of France raised its rate to 8, 9 and 10 per cent. for one, two, and three months. Another English bank was assisted. The City of Glasgow Bank then stopped. On that day the discounts at the Bank were £1,126,000. On the 10th and 11th, upwards of one million sterling in gold was sent to Scotland, and there was a great demand from Ireland. On the 11th, Sanderson and Co., the great bill brokers, stopped payment, with deposits of 3½ millions. On the 12th the discounts at the Bank were £2,373,000. On the 11th, in consequence of these sudden demands for Scotland and Ireland, the bullion was reduced to £6,666,000, and the reserve to £1,462,000.

As the failures in London became more tremendous, discounts became more and more contracted. The stunning news of the stoppage of so many banks created a banking panic. Private banks stopped discounting altogether. The only source of discount was the Bank of England. The public, however, and the directors knew that the precedent of 1847 must be followed, and though they made no direct application to the government for the suspension of the Act, they laid the state of the Bank continually before them, and continued to discount as if they knew the Act must be suspended. At last private persons being unable to obtain discounts, began to make a run for their balances. When universal ruin was at last impending, the government, on the 12th November, sent a letter to the Bank to say, that if they should be unable to meet the demand for discounts and advances upon approved securities, without exceeding the limits of their circulation prescribed by the Act of 1844, they would be prepared to propose to parliament a Bill of Indemnity for any excess so issued. In order, however, to prevent the temporary relaxation of the Act from being extended beyond the necessities of the case, the rate of discount was not to be reduced below their present rate, 10 per cent.

The issue of this letter immediately calmed the public excitement. But on the evening of the 12th the total banking reserve of the Bank and all its branches was reduced to £581,000. Truly said the Governor of the Bank to the question 132, "Supposing that the letter in question had not been issued on that day, would the Bank, on the morning of the 13th, have been in a condition to continue its discounts?—No; certainly not."

"133. Would it not have been compelled to announce it could not discount any more commercial paper?—Yes, or nearly so.

"138. Is it not likely that the announcement of the cessation of discounts at the Bank of England would have increased the alarm of the mercantile public in London?—Materially.

"139. Would not an increased alarm on the part of the mercantile public have naturally led to an increased demand upon the bankers?—It would have led to immediate failures, and would so far have lessened the quantity of bills coming for discount, by the number of bills which were actually rendered unavailable

"140. Without reference to bills, do you not think it likely that there would have been increased demands upon the bankers, which would have compelled them to withdraw a portion of their deposits from the Bank of England?—I think certainly that in part there would have been."

To shew the state the Bank was reduced to, the Governor gave in a paper to the Committee with the following figures, shewing its reserve on the 11th and 12th November:—

On Wednesday, November 11th, the reserve consisted of—

	£	£
Notes in London	875,005	
" at Branches	582,700	
		957,715
Gold coin in London	810,784	
" at Branches	97,665	
		408,449
Silver coin in London	44,046	
" at Branches	51,948	
		95,994
Total Reserve		£1,462,153

On Thursday, November 12, at night, the reserve consisted of—

	£	£
Notes in London	68,085	
" at Branches	62,545	
		130,630
Gold coin in London	274,953	
" at Branches	83,255	
		358,208
Silver coin in London	41,106	
" at Branches	50,807	
		91,913
Total Reserve		£580,751

That is to say that the total reserve in London on the evening of the 12th was £384,144. Such were the resources of the Bank of England to commence business with on the morning of the 13th! Truly, said the Governor, it must have entirely ceased discounting, which would have brought an immediate run upon it; and the banker's balances alone were £5,458,000. It is easy to see that the Bank could not have kept its doors open an hour.

The Governor of the Bank said that the panic of 1857 was not so great as that of 1847, but the real commercial pressure was more intense. This is proved by the fact that while in the former year the issue of the letter immediately allayed the panic, and by that means stopped the demand for notes, and there was only required an issue of £400,000 in notes to surmount all difficulties, which did not exceed the statutory limits; in 1857 the issue of the Government letter produced no cessation of demand for advances. The statutory limit was £14,475,000 of notes issued on

securities, and there were issued in excess of these—

Nov. 13	£ 186,000	Nov. 23	£ 267,000
" 14	622,000	" 24	317,000
" 16	800,000	" 25	81,000
" 17	836,000	" 26	248,000
" 18	852,000	" 27	342,000
" 19	896,000	" 28	184,000
" 20	928,000	" 30	15,000
" 21	617,000		

On the meeting of Parliament an Act was passed permitting a temporary suspension of the Bank Act till February 1st, 1858, provided the directors did not reduce their discount below 10 per cent. On the 24th December they reduced it to 8 per cent., thereby reviving the operation of the Act.

The following table shews the figures of various departments of the Bank before and during the crisis:—

	ISSUE DEPARTMENT.		BANKING DEPARTMENT.						
	Notes Issued.	Gold Bullion and Coin.	Public Deposits.	Other Deposits.	Seven day and other Bills.	Government Securities.	Other Securities.	Notes.	Gold and Silver Coin.
	£	£	£	£	£	£	£	£	£
Oct. 3 ...	24,563,815	10,078,815	8,243,217	10,002,283	877,439	10,598,607	21	40	584,877
" 10 ...	24,014,510	9,539,510	8,502,326	9,667,123	872,580	10,560,607	22	00	570,488
" 17 ...	23,400,430	8,925,430	4,833,021	11,132,431	869,070	10,254,541	24	85	599,048
" 24 ...	23,252,105	8,777,105	4,861,740	11,263,986	819,442	10,000,000	24	40	592,689
" 31 ...	22,630,245	8,155,245	5,160,918	11,489,979	812,806	10,000,000	22	75	576,801
Nov. 4 ...	22,422,060	7,947,060	4,000,000	11,910,870	813,197	10,000,000	22	15	550,720
" 11 ...	21,141,065	6,666,065	5,000,000	12,335,344	853,075	10,000,000	24	10	504,443
" 18 ...	22,554,595	6,079,595	5,000,000	13,959,165	829,544	10,000,000	24	85	404,501
" 25 ...	23,259,145	6,784,145	5,000,000	14,951,516	815,888	10,000,000	31	40	479,527
Dec. 2 ...	23,370,770	6,895,770	6,000,000	14,496,186	841,261	10,000,000	31	40	460,697
" 9 ...	24,043,255	7,568,255	6,000,000	14,440,724	811,222	10,000,000	31	85	501,234
" 16 ...	25,400,735	8,925,735	6,000,000	15,077,428	893,754	10,000,000	31	75	525,120
" 23 ...	26,683,790	10,208,790	7,000,000	15,151,818	876,438	10,000,000	24	70	544,491
" 30 ...	25,380,555	10,905,555	7,000,000	15,072,971	827,405	10,000,000	22	85	549,408

Having thus laid before our readers an historical account of the various commercial crises which have occurred in this country, we may now make a few remarks on the policy which various authorities have recommended should be pursued by the Bank of England during them. And this is an inquiry of the highest national importance. Under the immense development of the system of credit in modern times, these crises are sure to be of periodical recurrence, and a wrong course of action may be attended with the most serious consequences to the public.

Ever since the crisis of 1793, there have been strong differences of opinion as to what ought to be the policy of the Bank in the midst of a crisis. Some contend that its issues ought to be rigorously limited, thinking apparently that if it extends its issues, they will only be thrown back upon it and gold demanded. Others maintain that its true policy, under such circumstances, is to enlarge its issues to support public credit.

In the crisis of 1793, the Bank acted upon the restrictive system, and steadily refused to enlarge its issues, though pressed to do so by Government. When all credit was threatened with ruin in consequence of this policy, the Government at last came forward, and by an issue of Exchequer Bills restored confidence, and the crisis passed away.

In the crisis of 1797, the Bank acted upon the same policy of rigorous restriction, and it had to suspend cash payments.

On both these occasions, 1793 and 1797, the severe policy of the Directors, which was perfectly right to a certain length, had turned the exchanges in favour of the country, and gold was coming in. The precedent of 1793 shewed that under such circumstances their issues might have been enlarged with perfect safety. And this was further proved by the fact that even after the

suspension in 1797, and the increase of their issues, gold continued to flow in in vast quantities, so that in the month of November, they had upwards of five millions of treasure in their vaults. This decisively proves that they might have enlarged their issues with perfect safety, and such a course would have prevented them from being obliged to stop payment.

Mr. Henry Thornton, a banker of great eminence, and one of the authors of the Bullion Report, being examined before the Committee of the Lords in 1797, explained to them how too great a diminution of bank notes produced a demand for guineas. He said, p. 73—"I think that an increased quantity of notes proportioned to the increased occasion for them, must tend to prevent a demand for guineas rather than to promote it; and if the quantity of notes issued should be very considerably less than the occasion of the mercantile world requires, I should think a run upon the Bank for guineas would be the consequence."

At p. 80—"When the Bank of England materially lessens or suppresses its notes, there are no other notes which can supply their place. Their place, indeed, may be supplied partly by guineas, but these guineas must be supplied by the Bank of England itself; the distress which the suppression of Bank of England Notes, to any considerable degree, causes in the metropolis, produces distress throughout the whole kingdom. It is the means of producing the suppression of much of the paper of the country, and of a consequent demand for guineas from the Bank."

Mr. Walter Boyd, also an eminent banker, being asked—"Are you of opinion that an increased issue of Bank of England Notes made to the public by an extension of discounts would or would not have contributed to increase the demand of cash from the Bank?"—said, "I am of opinion

that if the amount of the issues of Bank of England Notes had been only maintained at what I conceive must have been its height in the month of December, 1795, the drain of specie from the Bank, as well as all the embarrassments in the mercantile world, and a very great portion of the fall which the public securities have experienced, would have been prevented."

Mr. Boyd and Mr. Thornton both repeated the same opinions before the Committee of the Commons, saying that a diminution of Bank Notes had the inevitable effect of causing a drain of guineas.

We shall now quote a passage from Mr. Thornton's essay on paper credit. After condemning Adam Smith's notion of restricting the paper to the actual quantity of gold displaced, which we have quoted under CURRENCY PRINCIPLE, he says—"The causes which lead to a variation in the rapidity of the circulation of bank notes may be several. In general it may be observed that a high state of confidence serves to quicken their circulation; and this happens upon a principle which shall be fully explained. It must be premised that by the phrase, a more or less quick circulation of notes, will be meant a more or less quick circulation of the whole of them on an average. Whatever increases that reserve, for instance, of Bank of England Notes which remains in the drawer of the London banker as his provision against contingencies, contributes to what will here be termed the less quick circulation of the whole. Now, a high state of confidence contributes to make men provide less amply against contingencies. At such a time they trust that if the demand upon them for a payment which is now doubtful and contingent, should actually be made, they shall be able to provide for it at the moment, and they are loth to be at the expense of selling an article, or of getting a bill discounted, in order to make the provision much before the period at which it shall be wanted. When, on the contrary, a season of distrust arises, prudence suggests that the loss of interest arising from a detention of notes for a few additional days should not be regarded.

"It is well known that guineas are hoarded in time of alarm on this principle. Notes, it is true, are not hoarded to the same extent, partly because notes are not supposed equally likely, in the event of any general confusion, to find their value, and partly because the class of persons who are the holders of notes is less subject to weak and extravagant alarms. In difficult times, however, the disposition to hoard, or rather, to be largely provided with Bank of England Notes, will, perhaps, prevail to no inconsiderable degree.

"This remark has been applied to Bank of England notes, because these are always in high credit, and it ought, perhaps, to be chiefly confined to these. They constitute the coin in which the great mercantile payments in London, which are payments on account of the whole country, are effected. If, therefore, a difficulty in converting bills of exchange into notes is apprehended, the effect both on bankers, merchants, and tradesmen, is somewhat the same as the effect of an apprehension entertained by the lower class of a difficulty in converting Bank of England notes, or bankers' notes into guineas. The apprehension of the approaching difficulty makes men eager to

do that to-day, which otherwise they would do to-morrow.

"The truth of this observation as applied to Bank of England notes, as well as the importance of attending to it, may be made manifest by adverting to the events of the year 1793, when, through the failure of many country banks, much general distrust took place. The alarm, the first material one of the kind which had for a long time happened, was extremely great. It does not appear that the Bank of England notes, at that time in circulation, were fewer than usual. It is certain, however, that the existing number became, at the period of apprehension, insufficient for giving punctuality to the payments of the metropolis; and it is not to be doubted that the insufficiency must have arisen, in some measure, from that slowness in the circulation of notes, naturally attending an alarm, which has just been described. Every one fearing least he should not have his notes ready when the day of payment should come, would endeavour to provide himself with them somewhat beforehand. A few merchants, from a natural though hurtful timidity, would keep in their own hands some of these notes which, in other times, they would have lodged with their bankers; and the effect would be, to cause the same quantity of bank paper to transact fewer payments, or, in other words, to lessen the rapidity of the circulation of the notes on the whole, and thus to increase the number of the notes wanted. Probably also some Bank of England paper would be used as a substitute for country bank notes suppressed.

"The success of the remedy which the Parliament administered denotes what was the nature of the evil. A loan of Exchequer Bills was directed to be made to as many mercantile persons, giving proper security, as should apply. It is a fact worthy of serious attention, that the failure abated greatly, and mercantile credit began to be restored, not at the period when the Exchequer Bills were actually delivered, but at a time antecedent to that era. It also deserves notice, that though the failure had originated in an extraordinary demand for guineas, it was not any supply of gold which effected the cure. The fear of not being able to obtain guineas, which arose in the country, led in its consequences to an extraordinary demand for bank notes in London; and the want of bank notes in London became after a time the chief evil. The very expectation of a supply of Exchequer Bills—that is, of a supply of an article which almost any trader might obtain, and which it was known that he might then sell, and thus turn into bank notes, and after turning into bank notes, might also convert into guineas—created an idea of general solvency. This expectation cured, in the first instance, the distress of London, and it then lessened the demand for guineas in the country, through that punctuality in effecting the London payments which it produced, and the universal confidence which it thus inspired. The sum permitted by Parliament to be advanced in Exchequer Bills was five millions, of which not one-half was taken. Of the sum taken no part was lost. On the contrary, the small compensation, or extra interest, which was paid to Government for lending its credit (for it was mere credit, and not either money or bank notes, that the Government advanced), amounted

to something more than was necessary to defray the charges, and a small balance of profit accrued to the public. For this seasonable interference, a measure at first not well understood, and opposed at the time chiefly on the ground of constitutional jealousy, the mercantile as well as the manufacturing interests of the country were certainly most indebted to the Parliament and to the Government.

"That a state of distrust causes a slowness in the circulation of guineas, and that at such a time a greater quantity of money will be wanted in order to effect only the same money payments, is a position which needs scarcely be proved. Some observations, however, on this subject may not be useless. When a season of extraordinary alarm arises, and the money of the country in some measure disappears, the guineas, it is commonly said, are hoarded. In a certain degree this assertion may be literally true. But the scarcity of gold probably results chiefly from the circumstance of a considerable variety of persons, country bankers, shopkeepers, and others augmenting, some in a smaller and some in a more ample measure, that supply which it had been customary to keep by them. The stock thus enlarged is not a fund which its possessor purposes in no case to diminish, but a fund which, if he has occasion to lessen it, he endeavours, as he has opportunity, to replace. It is thus that a more slow circulation of guineas is occasioned; and the slower the circulation the greater the quantity wanted in order to effect the same number of money payments.

"Thus, then, it appears that the sentiment which Dr. Smith leads his readers to entertain—namely, that there is in every country a certain fixed quantity of paper supplying the place of gold, which is all that 'can easily circulate' (or circulate without being forced into circulation), and which is all (for such likewise seems to be the intended inference) that should ever be allowed to be sent into circulation—is in a variety of respects incorrect." Mr. Thornton goes on to shew in other ways that Smith's idea is quite fallacious; we have given further extracts under CURRENCY PRINCIPLE, as they bear on that doctrine. At p. 245 he says—"Some political persons have assumed it to be a principle that in proportion as the gold of the Bank lessens, its paper, or, as is sometimes said, its loans (for the amount of the one has been confounded with that of the other) ought to be reduced. It has been already shewn that a maxim of this sort, if strictly followed up, would lead to universal failure." Mr. Thornton then proceeds to controvert the doctrine of the Directors, that a paper currency could not be redundant if based upon mercantile bills arising out of real transactions, which we have discussed under BULLION REPORT, § 51.

In 1810 the Governor and Deputy-Governor of the Bank were examined before the Bullion Committee about their policy in 1797:—

"What do you consider as the result of the experience which the Bank gained in 1796 and 1797?—The experience the Bank gained in those years was, that if they had persisted in diminishing their discounts to a greater degree than they did, they would have brought on ruin to the mercantile part of the community.

"Did not the diminution of discounts at these

periods create great public distress?—Inasmuch as I have already stated; many of the Bank Directors repented of the measure.

"Whether or not there was, in the end of the year 1796 and beginning of the year 1797, a considerable diminution of the outstanding notes of the Bank of England?—There was.

"Was not much of the public and commercial distress which arose at that period attributable to that diminution?"

Mr. Whitmore—"I have no doubt about it.

Mr. Pearce—"Undoubtedly.

"Whether, in your opinion, it was not a much wiser measure, relative to the mercantile interests of the country, that the restriction of cash payments should have taken place in 1797, than that the Bank should have persevered in diminishing the issue of bank notes in discount?"

Mr. Whitmore—"Certainly."

We have quoted in BULLION REPORT, § 39-41, the strong and emphatic opinion of the Committee that the Bank acted wrongly both in 1793 and 1797, and that in certain commercial crises an enlarged accommodation was the true remedy; and they further said—"Your Committee have much satisfaction in thinking that the Directors are perfectly aware that they may err by a too scanty supply in a period of stagnant credit. And your Committee are clearly of opinion that although it ought to be the general policy of the Bank Directors to diminish their paper in the event of the long continuance of a high price of bullion and a very unfavourable exchange, yet it is essential to the commercial interests of the country, and to the general fulfilment of those mercantile engagements which a free issue of paper may have occasioned, that the accustomed degree of accommodation to the merchants should not be suddenly and materially reduced; and that if any general and serious difficulty or apprehension on this subject should arise, it may, in the judgment of your Committee, be counteracted without danger, and with advantage to the public, by a liberality in the issue of Bank of England paper proportioned to the urgency of the particular occasion."

The circumstances which occasioned the appointment of the Committee were produced by improper extension of their issues. "In order to prevent this in future," say they—"your Committee have understood that remedies, or palliatives, of a different nature, have been projected, such as a compulsory limitation of the amount of Bank advances and discounts during the continuance of the suspension; or a compulsory limitation, during the same period, of the rate of Bank profits and dividends, by carrying the surplus of profits above that rate to the public account. But, in the judgment of your Committee, such indirect schemes for palliating the possible evils resulting from the suspension of cash payments would prove wholly inadequate for that purpose, because the necessary proportion could never be adjusted, and, if once fixed, might aggravate very much the inconveniences of a temporary pressure; and even if their efficacy could be made to appear, they would be objectionable as a most hurtful and improper interference with the rights of commercial property."

Thus, we see that the Bullion Committee expressly condemned any arbitrary limitation of

the issues of the Bank, on account of the bad effects it would have in aggravating a commercial crisis.

Nor did the framers of the Act of 1819 hold any different opinion. They expressly disclaimed fixing any numerical limit to the issues of the Bank. Lord Liverpool (*Parl. Deb.*, Vol. XL., p. 620) speaking of the paper circulation, said that, upon a subject of this nature, it was obviously impossible to fix any nice proportion; and if he was asked what was the only criterion of a circulation being sufficient or excessive, he must answer that it could be found only in its value when compared with the precious metals. Lord King said that the numerical amount of Bank notes could be no guidance for the amount of issues. The only rule which could be given for their regulation was to keep gold at the mint price. Mr. Peel, who was chairman of the Committee, and who introduced the bill into the House, said (p. 681) "there was, in fact, no test of excess or deficiency, but a comparison with the price of gold. He said (p. 685) that some proposed to prescribe such a limitation of the issues of Bank notes as would secure the power of the Bank over the foreign exchanges. He, for one, confessed that this always appeared to him to be a very unwise position—and for this reason, that it depended so much on circumstances when to say there was an excess or not of circulation. There were occasions when what was called a run upon the Bank might be arrested in its injurious effects by an increase of the issues. There were other occasions when such a state of things demanded a curtailment. In the year 1797, when a run was made on the Bank, but when the exchanges were favourable, and the price of gold had not risen, it was proved that an extension of issues might perhaps, by restoring confidence, have rendered the original restriction unnecessary, and prevented the evils of the existing panic. On the other hand, if the run was the effect of unfavourable exchanges, and the consequent rise in the price of gold, the alarm must be met by a reduction of issues. It was therefore impossible to prescribe any specific limitation of issues to be brought into operation at any period, how remote soever. The quantity of circulation which was demanded in a time of confidence varied so materially from the amount which a period of despondency required, that the House must feel the absolute incapability of fixing on any circumscribed amount. It was impossible to advert to the evidence taken before the Committees, without being impressed with that conviction." Thus, we see that Sir Robert Peel expressly disclaimed the idea of fixing any limit to the issues of the Bank at any period, however remote. That period came, however, in 1844.

In the crisis of 1825 the Bank again tried the restrictive policy for some days, but found that if it maintained it general ruin would ensue. It then suddenly changed its policy, and issued with great profusion, and the panic passed away in a day or two. Mr. Lloyd himself spoke of the issue of the £1 notes as a fortunate circumstance, before the Bank Charter Committee of 1832. In his speech on the renewal of the Bank Charter in May, 1833 (*Parl. Deb.*, Third Series, Vol. xviii., p. 1336), Sir Robert Peel deprecated the establishment of

another bank of issue in the Metropolis, as he said that the interests of commerce required that there should be but one bank of issue, in order that it might exercise an undivided control over the issue of paper, and give facilities to commerce in times of difficulty and alarm which it could not give with the same effect if it were subject to the rivalry of another establishment. Thus we see that, up to this time, Sir Robert Peel was against the numerical limitation of the issues of the Bank.

The repeated mismanagement of the Bank, however, in 1837 and 1839, convinced that eminent statesman that something required to be done, if possible, to check it. In the Committee of 1840 a very influential body of the witnesses maintained what is called the currency principle, which is this, that bank notes payable to bearer on demand alone are currency, to the exclusion of all other forms of paper credit, and that when these are permitted to be issued, they ought to be exactly equal in number to the quantity of gold that there would be if there were no notes. If this doctrine, then, were to be carried out in practice, it would be necessary to limit the issues of the Bank by some method in accordance with this principle.

In 1844 Sir Robert Peel seized the opportunity which was allowed by the Bank Charter Act to endeavour to carry this principle into effect, which was, as we have seen, quite contrary to his previously recorded opinions. We shall not enter here into an explanation of his method of doing so, because that is done under CURRENCY PRINCIPLE. The leading features of this Act were the *absolute prohibition* of the establishment of any new banks of issue in the country, and the limitation of the issues of the Bank—two things which are by no means necessarily connected with one another. The preceding crises were supposed to have been mainly caused by excessive issues of the Bank; and it was supposed that if these could be prevented, the crises which grew out of them would not occur—a fallacious expectation, as they might have learned from the experience of other nations, because crises just as severe as any in England had occurred at Amsterdam and Hamburg, where the principle they adopted was in full operation.

The experience, however, of 1847 and 1857 has amply vindicated the wisdom of those authorities of former times, who condemned a numerical limitation of the notes on account of the necessity of a liberal enlargement of the issues in times of panic. The restrictive policy was attempted to be maintained in 1847, and it was found necessary to abandon it, and immediately that was done the panic vanished. But this was done in a much more serious manner than in former times. Then the Bank had nothing to do but to change its policy. In 1847 they had to commit a positive breach of the law, at the instigation of the Government. In 1857, when the pressure became very severe, they knew that the Ministry must follow the precedent of 1847, and they acted as if the Government would do so, and the Ministry were obliged a second time to instigate the Directors to break the law, rather than cause universal failure, as well as the stoppage of the Bank itself. We may observe that Sir Robert

Peel and Lord Overstone himself approved of the conduct of the Government in 1847.

There is now no further need of any more experience. Everything that can be said has been said, and the only question is to come to judgment on the conflicting views.

The arbitrary limitation of the word *Currency* to bank notes payable to bearer on demand exclusively, is, we hope we have shewn under *CURRENCY*, quite erroneous, and contrary to all sound philosophy. The *Currency Principle* itself is a pure delusion (*CURRENCY PRINCIPLE*); and, moreover, it is the greatest delusion of all to suppose that the Bank Act of 1844 carries it out.

A great part of these erroneous doctrines are founded on a mistaken view of the nature of credit. Nothing is more common than to say that money has intrinsic value, and that paper is only the representative of value. The utter contradiction of ideas involved in this language is fully shewn under *CREDIT, CURRENCY, VALUE*. It is totally forgotten that money has no value except what it will exchange for, and that whatever will exchange for gold is of the value of gold. Paper that is always exchangeable for gold, as every economist has shewn, is equal in value to gold. The true problem, then, is to discover how paper may best be kept at the value of gold.

The real error of the Bank has always been that, tempted by the desire of making too great profits, they let their stock of gold run down too low, so that it endangered the convertibility of the note. Trusting to their well-known and enormous capital, they thought that no one could ever doubt the solvency of the Bank, and, therefore, that their issues could not be depreciated. They never took proper measures to check a drain at its commencement, in consequence of the unpopularity of such a course with the commercial world with which they were so intimately connected.

It is perfectly well recognised now by every one who has the least knowledge of the subject, that the true method of arresting a foreign drain is by *raising the rate of discount*. This not only checks a foreign drain, but effectually curbs an undue expansion of the credit system at home.

The advocates of the Bank Act have always claimed for it the merit of having compelled the Directors to keep a larger stock of bullion than they did before. They also say that in the spring of 1847, it was the only thing which prevented the Directors committing the same error as they had done so often before, of letting their treasure leak out before they took effectual measures to stop it. They say, therefore, that it arrested the Bank in its mischievous career, and by bringing the pressure on earlier than otherwise would have happened, it made it less severe. They also say that when the panic came in October, 1847, it was only through the restrictions caused by the Act that the Bank had eight millions of treasure in its vaults.

There can be no doubt of the justice of these claims. It is undoubtedly certain that the Directors did commit the same error as they had done before, and it was the Act which arrested them; and it was the Act which compelled them to keep such a reserve as they had in October.

The Act has, therefore, had the undeniable merit of compelling the Directors to pay a strict attention to the rate of discount; and since that

time this principle has been constantly gaining ground, and is now fully understood. The feeling of writers and the public has undergone a wonderful change in this respect within the last few years. It is not so very long ago since the Directors were covered with abuse in many papers whenever they raised the rate of discount. Even writers of eminence, and among others Mr. Tooke, make it an accusation against the Act that variations in the rate of discount have been much more frequent since it was passed, and they exhibit tables of these changes. But, in fact, these tables are just so many testimonies to its merits; and this is happily well understood now. Instead of being abused, the directors are commended; and if they do not take timely measures, they are urged to do so by the papers.

Now, we think that the Act is justly entitled to this merit, and it is of the first magnitude.

The real and fundamental objection to the Act is its operation during a commercial crisis. Ample and undeniable experience has proved this in a way that cannot be gainsayed. Its plan and its theory were known to the most distinguished authorities a very long time ago, and were expressly condemned by them, and its mischievous effects foreseen and predicted long ago. The advocates of rigorous restriction, and the advocates of enlarged issues during a crisis, have both placed their arguments before the world, and repeated experience has shewn that the advocates of enlarged issues are in the right. The restrictive policy has uniformly failed. The only instance in which it was fully carried out it brought on a suspension of cash payments, and in the others it would have done so if it had not been abandoned.

It has often been said that on such occasions houses that have overtraded should be allowed to fall, and that it is not the duty of the Bank to bolster up insolvent concerns, and that it is to the advantage of commerce that they should be swept away. If this course of argument were applied only to insolvent houses, it would, no doubt, be true. All insolvent houses should be swept away; it is quite true that the Bank has no business to bolster them up. Nay, to do so is to do an injustice to their creditors; for, as the Bank will of course do its best to take security for its own advances, that takes away so much from the other creditors.

If the question touched insolvent houses only, the restrictive policy would, no doubt, be correct. But the fact is that the mischief extends much further than to them. By the modern system of credit, houses in commerce are so connected with one another, that the public are wholly unable to tell which are solvent, and which are not. The consequence is that a general distrust of all paper whatever arises. The paper of the greatest houses becomes unmarketable. The Bank only has the means of judging which houses are solvent and ought to be supported, and which are insolvent and ought to fall. All experience proves, and all the most eminent authorities of former times have declared, that there must be some means of extending support to really solvent houses; and of that power of support the Act of 1844 wholly deprives the Bank.

In times of panic every one wishes to obtain some solid credit. Even when the Bank is

allowed unlimited issues, if it is expected that the rate of discount is to be raised, people hasten to get discounts, or to get notes to hoard for the sake of security; and if they cannot get Bank notes, they demand gold.

In ordinary times, raising the rate of discount checks the undue expansion of credit and the demand for notes, and prevents the efflux of gold. But in times of panic, though of course the rate of discount ought to be raised to attract gold from abroad, and to prevent its export, it has no effect whatever in checking the demand for notes. It is then not a question of profit, but of existence. When the power and the resources of the Bank are visibly diminishing before the eyes of the commercial public, every one thinks only of his own security. In such circumstances, raising the rate of discount has only the effect of making the demand for notes stronger. Every one will rush to over-provide himself, and then hoard away the notes. This was decisively proved by the experience of 1847, when many millions of notes were hoarded away, but which came out of their hiding places as soon as the Act was suspended. Hence, it is the very consequence of the Act to make the demand for notes much more intense than it would otherwise have been; and if notes are not to be had, then a run for gold commences. This was the case on all former occasions when the restrictive policy was carried out, and especially in the great crisis of 1857, when a very few hours more would have compelled all the banks in London to stop payment.

The Act of 1844 was avowedly passed because the Directors were shewn to be incapable of managing their own business. It was the severest stigma that could be placed upon them. It was a public declaration, either that they did not know the true principles of banking, or that they had not the firmness to act upon them. If they had conducted the business of the Bank on sound principles, there never would have been any need for the Act; and if it were well ascertained now that for the future the Directors were determined to obey true principles, there would be no further need of it.

And this is what we believe to be the case. For several years past, the management of the Bank has been unimpeachable. It is well understood now, not only in the Bank parlour, but by the general public, that the Bank must be kept in a position to put all danger of the convertibility of the note out of all question; and this is to be done only by carefully adjusting the rate of discount to the state of the foreign exchanges. The general intelligence of the public has amazingly advanced on this point within the last few years; and even if there were any reason to suppose that the Directors were inclined to depart from these sound principles, which there is not, the increased knowledge and intelligence of the public would compel them to keep the Bank in a solvent position.

Fully allowing, then, that this merit is really attributable to the Act, for which it is entitled to the highest commendation, it may be truly said that it has done its work, and that there is no longer any necessity for it, and may now with propriety, and ought to, be repealed, so far, at least, as regards the limitation of the issues of the Bank.

By the confession of its own framer, the expectation of its power of preventing a crisis was over-sanguine. It had been observed that the Bank had greatly contributed on many former occasions to produce commercial crises by over-issues; and the conclusion was too hastily drawn that over-issues of the Bank were the *only* cause of commercial over-trading. Mr. Cobden even said that if the currency were purely metallic, accommodation paper would be prevented. Sir Robert Peel said distinctly that it was better to take measures to prevent paroxysms than to trust to desperate remedies to cure them. He, therefore, took away the power of cure, because he imagined that he had prevented the disease. But ample experience has shown that in this he was too sanguine. Nay, the supporters of such a doctrine need only to look to the experience of those countries where the very principle they admired so much was in full operation, to see the erroneousness of such an expectation. The Banks of Amsterdam and Hamburg were expressly founded on the "currency principle." They gave no credit whatever except in exchange for bullion, and commercial crises were just as severe, nay, probably more so than in England. In the great crisis of 1857 at Hamburg discount rose higher than in London, and the Government were obliged to come forward to interpose their credit to protect the credit of the merchants, because the Bank could not do so. And there can be no reasonable question that if it is absolutely necessary to do such a thing, it ought to be done by a great commercial establishment like the Bank of England, on the recognised principles of business, rather than by the abnormal interference of Government.

The peculiar state of the law with regard to Bank of England notes adds still further force to this view. Contrary to the earnest remonstrance of Sir Robert Peel in 1833, Bank of England notes were made legal tender between all parties, except when the Bank itself is one, so long, and so long *only*, as the Bank pays them in gold on demand. Now, suppose it is generally known that the Bank is about to suspend payments, debtors may go and compel their creditors to receive payment of their debts in bank notes, and perhaps the very next hour the news comes that the Bank has stopped payment, and then these notes are so much waste paper in the hands of the very men who were compelled to receive them an hour before. They were compelled to receive payment in paper, and an hour afterwards they are compelled to pay their own debts in nothing but gold. This is no imaginary case. Every man in London on the 12th November, 1857, knew that the Bank of England could not have been kept open for two hours on the 13th unless the Act was suspended, and directly the Bank stopped payment its notes would have ceased to be legal tender; not a bill could have been paid in them except at the option of the payee.

While, therefore, we admit that one great merit which its admirers claim for it is undoubtedly true, it cannot be denied that a very serious charge brought against it by its opponents is also true. Experience as clear as the sun at noonday has shewn that it is wholly powerless to prevent a commercial crisis, and when a crisis does occur it intensifies its pressure, and converts a crisis into a panic, which is certain to end in universal

failure, including the stoppage of the Bank itself. It then deprives the Bank of what all experience has shewn to be the only remedy for such a state of affairs. On each occasion when this has happened already, the Government have found it necessary to resort to the most desperate course in a constitutional country, namely, to give their solemn sanction to a deliberate violation of the law. Every one knows that commercial crises will recur periodically, and every one knows that on their occurrence every Government will be obliged to pursue exactly the same course. In fact, it would be far more hazardous for the Government to abstain from violating the law than to do so. What example can be more pernicious in a constitutional country? What is the use of a law that every one knows will be set aside and violated, whenever certain occasions recur?

There is every reason to expect that if the Act were repealed so far as regards these points, the Directors would manage the Bank on sound principles. But if they did not, we think that every principle of sound reasoning would point to an improved constitution of the Direction itself. Nothing can be more clear than that the long monopoly of the Bank was utterly opposed to all sound principles of political economy, and inflicted immense injury on the country. The pretensions of the Directors were anomalous. They claimed to exercise a great function of State, and they claimed to be exempt from all interference as a private body. The Directors are exclusively selected out of the commercial class, and of course their sympathies would naturally go with their own class, and in former times it is undoubtedly certain that they allowed such sympathies to have a predominating influence. Their interests as merchants were opposed to their duty as bankers; and formerly, we do not say corruptly, but yet undoubtedly, the latter gave way to the former. There is no reason whatever to suppose that such would be the case now-a-days, if these parts of the Act were repealed. But if such should be the case, the State would have every right to interfere. The Bank of England has become—unfortunately, in our opinion—an engine of the State; and if it should be proved that that class of the community to which hitherto its administration has been exclusively entrusted, should be unable or unwilling to conduct it properly, it would be the undoubted right of the State to devise such an improved organisation of its Direction, as should place it in hands competent to conduct it on sound principles.

CROFTS, WILLIAM.

A Christian View of Trade, shewing the source of the present Commercial Distress, and its efficient Remedy. London, 1830.

CROMBIE, ALEXANDER.

A Letter to D. Ricardo, Esq., containing an Analysis of his Pamphlet on the Depreciation of Bank Notes. London, 1813.

CROME, A. F. G. Born 6th August, 1753, at Seegwarden, near Knipphausen. He was educated at Halle, and became Professor of Geography to the Hereditary Prince of Dessau.

In 1817 he was appointed Professor of Political Economy in the University of Giessen, where he remained till 1830, and published many works on statistics. He died at Bædelheim, near Frankfurt, in 1833.

Europa's Produkte. Dessau, 1782, 1804.

Die Staatsverwaltung Toscana's unter Leopold. Leipzig, 1795—97.

Ueber Deutschlands und Europa's Staats- und National Interesse. Giessen, 1814.

Uebersicht der Staatskräfte sämtlicher Europäischen Länder. Leipzig, 1818.

Geographisch-Statistische Darstellung der Staatskräfte der sämtlichen zum Deutschen Bunde Gehörigen Länder. Leipzig, 1820—27.

Hundbuch der Statistik des Großherzogthums Hessens. 1822.

CROOKSHANKS, JOHN.

Some Seasonable Remarks on a Book by A. Hutcheson, Esq., relating to the Public Debts, or Funds. London, 1718.

CROBY, WILLIAM GLENNY.

A Treatise on Industrial Resources (still neglected) in Ireland, in which the Manufacturing Powers of Ireland are pointed out, their value estimated, and how to work them on purely commercial principles set forth. Dublin, 1860.

CRUICKSHANKS, JAMES.

Observations on Money as the Medium of Commerce. London, 1811.

CRUMPE, SAMUEL, a doctor at Limerick.

An Essay on the best Means of providing Employment for the People. London, 1793.

This work obtained a prize from the Royal Irish Academy.

CRUTWELL, RICHARD.

Petition to the King on the Currency, or Standard of Value. Halesworth, 1827.

Salvâ Fide; a Letter on the Currency and the Necessity of a New Standard, as opposed to the ruinous principles of what is called Mr. Peel's Bill. London, 1830.

The System of Country Banking Defended. London, 1828.

The Touchstone of England, Oversight no Crime, Excessive Taxation proved the True Cause of England's present Public Distress. Halesworth, 1843.

A Treatise on the State of the Currency at the Present Time. London, 1825.

CULLEN, EDWARD.

Isthmus of Darien Ship Canal, with a Full History of the Scotch Colony of Darien. London, 1853.

CULPEPER, SIR THOMAS.

A Tract against the High Rate of Usury. London, 1623.

A Discourse shewing the many advantages which will accrue to this Kingdom by the Abatement of Usury. London, 1668.

A Short Appendix to the late Treatise concerning Abatement of Usury. London, 1668.

The Necessity of Abating Usury Reasserted. London, 1670.

CUMBERLAND, RICHARD, Bishop of Peterborough, a celebrated writer on moral philosophy, was born in London in 1632. He was educated at St. Paul's School and Magdalene College, Cambridge, of which he became a Fellow about 1655. He wrote to combat Hobbes. The Lord Keeper, Sir Orlando Bridgman, made him his chaplain, and afterwards gave him the living of Allhallows, in Stamford. His exemplary conduct and learned works recommended him to King William, who, to his great surprise, appointed him successor to the nonjuring Bishop of Peterborough. At the age of 83 he began to learn Coptic, in order to understand the Coptic Testament which was presented to him by Dr. Wilkins. He died at 87, in 1718.

An Essay towards the Recovery of the Jewish Measures and Weights, comprehending their Monies. London, 1686.

CUREL, T. M., Prefect of the Department of the Hautes-Alpes before 1848.

Parti à Prendre sur la Question des Enfants Trouvés. Paris, 1845.

CURRENCY. The most brilliant orator of our times has declared that the Currency has driven more people mad than anything else, except love. Admonished, therefore, by such high authority, that in discussing the Currency Question we have Bedlam under our lee, we must do our best not to strand our readers on such a dreary shore.

In investigating the meaning and extent of the term Currency, we must call to our aid one of the most fundamental rules of philosophical classification. We must entirely disregard etymology, and steadily regard the nature of the thing, and consider the name as a mere mark used to designate a certain class of objects. All science is full of such changes. It is the first duty of the scientific enquirer to emancipate himself from the thralldom of etymology. "Descriptive names, although they might be supposed to be the best, have, in fact rarely been fortunate. The reason of this is obvious. The mark which has been selected for description may easily fail to be essential, and the obvious connection of natural facts may overleap the arbitrary definition. * * * The signification may assist the memory, but must not be allowed to subjugate the faculty of natural classification." (*Whewell. History of Inductive Sciences, Vol. III., p. 433, edit. 1857.*)

The instances of this that might be gathered from every branch of science are innumerable. Names have been given to substances from some quality which first attracted attention, and it has afterwards been discovered that that was not their fundamental idea, and the class has been extended, through the exigences of science, to include other things which have no trace of the quality whence it derives its name. We may only mention a few instances. In geology the term "oolite" was first applied to rocks which resembled the roe of a fish, but the necessities of

science compelled geologists to class certain other formations, which have no resemblance to roe, under the term of oolite, and such classification is universally adopted. So also white chalk may be yellow, green or black. In chemistry the term "combustion" was applied to certain phenomena on account of heat being developed in the process. But a deeper knowledge in chemistry disclosed that it was merely the process of oxygen combining with some other substance, and that the quality of the evolution of heat was accidental, and that there are cases of the combination of oxygen with substances where no heat is developed. And yet these are classed under the term combustion. Thus the rusting of iron is merely the process of oxygen combining with it chemically, and is classed as combustion, though no heat is developed. So the word *acid* is now extended to mean many things which are not sour. A *racecup* is a general name for a prize, which has long drifted away from the form of a cup. In many French establishments *suissé* is still used as a porter. A *quarantine* means any seclusion, though not for 40 days. A *hussar* comes from *haza*, the Hungarian word for 20; and, as was remarked long ago in Roman Law, *Æs etiam aureum nummum dicimus.*

Another important principle, also, in nomenclature, is to include under one term substances which possess the distinguishing quality in diminishing insensible gradations. This is well exemplified in Lyell's *Manual of Elementary Geology*. p. 2:—"The materials of this crust are not thrown together confusedly; but distinct mineral masses, called *rocks*, are found to occupy definite spaces, and to exhibit a certain order of arrangement. The term *rock* is applied indifferently by geologists to all these substances, whether they be soft or stony, for clay and sand are included in the term, and some have even brought peat under this denomination. Our older writers endeavoured to avoid offering such violence to our language, by speaking of the component materials of the earth as consisting of rocks and *soils*. But there is often so insensible a passage from a soft and incoherent state to that of stone, that geologists of all countries have found it indispensable to have one technical term to include both, and in this sense we find *roche* applied in French, *rocca* in Italian, and *felsart* in German."

In investigating the meaning and extent of the word Currency, we must, therefore, exclude all considerations of etymology, and keep our attention steadily fixed on the nature of the thing. In fact, to apply the word Currency to money is one of the most extraordinary instances of the abuse of language that was ever heard of. For a long time it had been usual to speak of money as being current; hence people spoke of the currency of money. So late as the case of *Miller v. Race*, Lord Mansfield (p. 228) says of money, that it cannot be recovered after it has passed in currency; but, before money has passed in currency, an action might be brought for it. He says the same of a Bank note, an action could not be brought for it after it was paid away in currency. Hence we see here that currency was used as a particular action of money. Some time after this, however, though at what period we cannot ascertain, by a most extraordinary con-

fusion of ideas, people began to call the money itself currency.

To shew the utter absurdity of such a notion, we may consider a few other examples. Nothing is more common than to say that an opinion or a report is current, or to speak of the currency of an opinion or a report. But who ever dreamt of calling the opinion or the report itself currency? It is very common to speak of the currency of the session of Parliament; but who ever dreamt of calling the session of Parliament itself currency?

Now, how can it be more rational in a scientific sense to call money currency, than to call a report, or an opinion, or the session of Parliament currency?

It was about the middle of the last century, as far as we can ascertain, that writers began to call money currency. The word is not often used by Adam Smith. He generally uses paper money where modern writers would use paper currency. Still later, between 1790 and 1800 the expression *circulating medium* came into use; as we find Mr. Fox complaining in 1797, that it was a new term whose meaning was not well understood. The expressions *currency* and *circulating medium* are, however, considered by all writers as absolutely synonymous.

Adopting the words *currency* and *circulating medium* as mere names to distinguish a certain species of economic quantities, we have to endeavour to discover to what they should be applied, and what function they fulfil in economics.

Every one knows that in the earliest ages of the world people trafficked by way of barter, or the direct exchange of things they wanted. The inconveniences of this have been so often detailed that there is no need to repeat them.

Among the numerous inconveniences of this would be the perplexities arising from the want of some common measure to refer the things exchanged to. It would take much haggling to decide how much wine should be given for so many slaves, or so much iron for so many hides. The first improvement, therefore, would be to discover some common measure to which the things exchanged might be referred. This appears to have been done in very early times, because though we find that in *Iliad* VII., 468, direct barter was employed, yet in many other passages of the *Iliad* and *Odyssey*, things are spoken of as being worth so many oxen. Some, no doubt, have thought that these oxen were actual coins; but, as we believe that the best authorities have now abandoned such an opinion, and we ourselves are firmly convinced that it is untenable, we may dismiss it from consideration. The fact is simply that people found the advantage of having some common measure when they came to barter, and they used that, without in any way employing that common measure for the purposes of money. Such a state of things in no way implied money, or currency, or circulating medium.

On the Origin of Money.

The necessity of money, however, arose from a somewhat different cause. As long as the things exchanged were equal in value, there would be no need for money, any more than there is at the present day when people exchange commodi-

ties at certain values. If it happened that whenever one man required the services of another, that other at the same time required an equivalent amount of service to be rendered in return, such transactions could take place with great facility, and the amount of service on each side being equal, there would be an end of the business. But it would often happen that when one man required the services of his neighbour, that neighbour would not require an equal amount of service at the same time, or even perhaps none at all. If then a transaction took place between them with such an unequal result, and the one amount of service was balanced against the other, there would remain over a certain amount of difference, or amount of service due from the first to the second, and this would constitute a *debt*.

The second would, however, require at some future time to have the balance of service due to him performed, and the debt discharged. Moreover, for his own security, he would like to have some evidence, or memorial, to prove the debt; and accordingly he might require the debtor to give him some sign or token of the fact. If writing had been known in those times, a statement in writing acknowledging the debt, and promising to render the service due whenever called upon to do so, would be a natural form of such evidence.

We may now suppose that the second person has dealings with a third, and requires his services, but that the third has no immediate use for the services of the second, but requires those of the first. Now, if the parties were so circumstanced, what could be more natural than for the second to transfer to the third the debt due to him from the first? A similar operation might be repeated by several different parties an indefinite number of times; and so, this written obligation, or this evidence of a debt, enabling the possessor of it to demand some service to be rendered by the debtor, would pass from hand to hand, or be current; and, from this use of it, the thing itself has, by a confusion of ideas, come in recent times to be called a *CURRENCY*.

This currency is nothing more than the evidence of services having been rendered, for which an equivalent has not been received, but which can at any time be demanded. It is obvious that as soon as it has been demanded and rendered, the evidence of its being due must be given up to the debtor to be destroyed, and it will be no longer current. Now, if any man can render services to his neighbours, he must in return receive either services, or the evidence of their being due; and, if he renders more than he immediately requires in return, he will accumulate a store of this evidence for his future wants.

It is evident that such a written obligation, as has been described, derives its whole transferable, or current, value from the fact, that the person who acknowledges himself bound to perform such services can render them at any moment that he may be called upon, and is generally believed to be able to do so. Thus, though it receives the *name* of currency from its being passed from hand to hand, it is current only because it has the power of transferring, or circulating, something else.

These simple considerations at once show the nature of a currency. It is the evidence of a

debt due to the possessor of it, proving that he has rendered services for which he has received no equivalent, but which he can demand at any time. And when he does demand it, he must give up or extinguish the evidence of the debt. Hence the use of the currency is to record debts, and to facilitate their transfer from one person to another, and whatever means be adopted for this purpose, whether it be gold, silver, paper, or anything else is a currency.

We may therefore lay down as our fundamental conception that *currency and transferable debt are convertible terms*; whatever represents transferable debt of any description is CURRENCY, and whatever material the currency may consist of, it represents *transferable debt*, and nothing else.

The preceding considerations suggest to us a principle that will be found to be of fundamental importance in Political Economy, and it will be seen that it is essentially requisite to bear it in mind in all questions relating to monetary science. It is this—*Where there is no debt, there can be no currency.* We have seen that where the exchanges were equal, there was no debt and there could be no currency. The debt represented the precise *inequality* of the exchange, and where there is no exchange the debt must equal in value the service rendered. Hence it is perfectly clear that the currency must supply the defect of the exchange, or rather in most cases do away with the necessity for an exchange. Its real use is manifestly to enable commodities to circulate, or move from the possession of one person to another, or to enable one person to render another services without the necessity of an exchange. Hence it may be said that the use of the currency is *rather to abolish exchanges, than to facilitate exchanges.* When some material substance only, like gold or silver was used as money, the quantity of money in a country just represented the quantity of debt that there would have been, if there had been no money. Hence the demand for money, or the work that money had to do was to represent debt, and nothing else, and of course the more money that was required to perform this purpose, the more its value would increase; and if the quantity of money always increased and diminished in exact proportion to the quantity of work it had to do, its value, according to a very common, but very inaccurate, mode of expression among Economists, would not alter. This expression is evidently inaccurate, because its value, or its relation to other things, might alter in consequence of some change taking place in the conditions of the things it was exchanged for. The true meaning of the phrase is, that the cause of the variation would not be in the money, but in the things it was exchanged for.

The true character of money as being a pledge, or security, has been seen by many writers. Thus Aristotle says (*Nicomachean Ethics*, B.V. c. v. 14.)—"Υπὲρ δὲ τῆς μελλούσης ἀλλαγῆς, (εἰ γὺν μηδὲν δεῖται, οὐκ ἔσται, ἐὰν δεηθῇ), τὸ νόμισμα οἷον ἘΠΙΥΗΤΗΣ ἔστιν ἡμῖν· δεῖ γὰρ τοῦτο φέροντι εἶναι λαβεῖν."—"But with regard to a future exchange (if we want nothing at present, that it may take place when we do want something), money is, as it were, our security. For it is necessary that he who brings it should be able to get what he wants."

So also that very excellent and too much neglected writer, Boisguillebert, who was one of the first to expose the fallacy that money was the only wealth, in his *Dissertation sur la Nature des Richesses* (Édit. Guillaumin, p. 374), very well points out the true character of money. He says, c. ii.,—"Le ciel n'est pas si éloigné de la terre qu'il se trouve de distance entre la véritable idée que l'on doit avoir de l'argent, et celle que la corruption en a établie dans le monde, et qui est presque reçue si généralement, qu'à peine l'autre est-elle connue, quoique cet oubli soit une si grande dépravation, qu'elle cause la ruine des états, et fait plus de destruction que les plus grand ennemis étrangers pourraient jamais causer par leurs ravages.

"En effet, l'argent, dont on fait une idole, depuis le matin jusqu' au soir, avec les circonstances que l'on a marquées, et qui sont trop connues pour être révoquées en doute, n'est absolument d'aucun usage par lui-même n'étant propre ni à se nourrir ni à se vêtir; et nul de tous ceux qui le recherchent avec tant d'avidité et à qui, pour y parvenir, le bien et le mal sont également indifférents n'est porté dans cette poursuite qu'afin de s'en dessaisir aussitôt, pour se procurer les besoins de son état ou de sa subsistance.

"Il n'est donc tout au plus, et n'a jamais été, qu'un moyen de recouvrer les denrées, parce que lui-même n'est acquis que par une vente précédente de denrées, cette intention étant généralement tant dans ceux qui le reçoivent que dans ceux qui s'en dessaisissent; en sorte que si tous les besoins de la vie se réduisaient à trois ou quatre espèces, comme au commencement du monde, l'échange se faisant immédiatement et troc pour troc, ce qui se pratique même encore en bien des contrées, les métaux aujourd'hui si précieux ne seraient d'aucune utilité.

"Il n'y a même aucune denrée si abjecte, propre à nourrir l'homme, qui ne lui fût préférée, en quelque quantité qu'elle se rencontrât, s'il était absolument défendu ou impossible au possesseur de l'argent de s'en dessaisir, ce qui le réduirait bientôt au même état que le Midas de la fable.

"Ce n'est donc que comme garant tout au plus des échanges, et de la tradition réciproque, qu'il a été appelé dans le monde, lorsque la corruption, et la politesse ayant multiplié les besoins de la vie, de trois ou quatre espèces qu'ils étaient dans son enfance, jusqu' à plus de deux cents où ils se trouvent aujourd'hui; ce qui fait que n'y ayant pas moyen que le commerce et le troc s'en fassent de main à main, comme dans ces temps d'innocence; et le vendeur d'une denrée ne trafiquant pas le plus souvent avec le marchand de celle dont il a actuellement besoin, et pour le recouvrement de laquelle il se dessaisit de la sienne, l'argent alors vient au secours, et la recette qu'il en fait de son acheteur lui est un procuration, avec garantie, que son intention sera effectuée en quelque lieu que se trouve le marchand, et cela pour autant, et sur un prix courant et proportionné à ce qu'il s'est dessaisi les mains de la denrée dont il était propriétaire: voilà donc l'unique fonction de l'argent. * *

"Comme il n'est tout au plus, ainsi qu'on vient de dire, qu'une garantie de la livraison future d'une denrée, qu'on ne reçoit pas immé-

diatement en vendant celle que l'on possède, du moment qu'elle se peut procurer sans son ministère, il sera obligé de renfermer tout son orgueil à demeurer absolument inutile et immobile."

He then mentions the Maldives Islands, where shells are used as currency; the West Indies, where tobacco was used for the same purpose. He then shows the superiority of the European practice which used neither gold nor silver, nor copper, nor shells, nor tobacco, but made simple pieces of paper perform all the duties of millions of gold and silver, and showed that the bills of a great merchant of undoubted wealth were preferable to ready money, which after passing through a multitude of hands and enriching them all, came back at last to the hands of the original issuer, and were discharged once for all. He then instances the fairs of Lyons, where there was an institution which was the original of the modern clearing house, where 80 millions of transactions were carried on without a single silver coin. We have quoted these views at so great a length that the reader may see how clearly Boisguillebert saw the true nature of money in 1707, and dissipated the fallacy, that money was the only species of wealth, which many suppose was first done by Adam Smith.

An old writer whose pamphlet (*An Essay upon Public Credit*, 1710,) has been accumulating dust for a century and a-half in the library of Eton College, saw the very same truth distinctly. He says,—"Trade found itself unsufferably streightened, and perplexed for want of a general species of a compleat intrinsick worth, as the medium to supply the defect of Exchanging, and to make good the balance where a nation, or a market, or a merchant demanded of another a greater quantity of goods than either the buyer had goods to answer, or the seller had occasion to take back."

Adam Smith had substantially the same idea. He says, B. I., ch. iv.—"When the division of labor has been once thoroughly established, it is but a very small part of a man's wants, which the produce of his own labor can supply. He supplies the far greater part of them by exchanging that surplus part of the produce of his own labor, which is over and above his own consumption, for such parts of the produce of other men's labor as he has occasion for. Every man thus lives by exchanging, or becomes in some measure a merchant; and the society itself grows to be what is properly a commercial society."

"But when the division of labor first began to take place, this power of exchanging must very frequently have been very much clogged and embarrassed in its operations. One man, we shall suppose, has more of a certain commodity than he himself has occasion for, while another has less. The former, consequently, would be glad to dispose of, and the latter to purchase, a part of this superfluity. But if this latter should chance to have nothing that the former stands in need of, no exchange can be made between them. The butcher has more meat in his shop than he himself can consume, and the brewer, and the baker, would each of them be willing to purchase a part of it; but they have nothing to offer in exchange, except the different productions of their respective trades, and the butcher is already provided with all the bread

and beer which he has immediate occasion for. No exchange can in this case be made between them. He cannot be their merchant, nor they his customers; and they are all of them less mutually serviceable to one another. In order to avoid the inconvenience of such situations, every prudent man, in every period of society, after the first establishment of the division of labor, must naturally have endeavoured to manage his affairs in such a manner as to have at all times by him, besides the peculiar produce of his own industry, a certain quantity of some one commodity or other, such as he imagined few people would be likely to refuse in exchange for the produce of their industry."

Smith then mentions several substances which have been used for this purpose. In B. II. c. ii. he expresses the same idea more clearly still:—"If the pension of such a person were paid to him not in gold, but in a weekly bill for a guinea, his revenue surely would not so properly consist in the piece of paper, as in what he could get for it. A guinea may be considered as a bill for a certain quantity of necessaries and conveniences upon all the tradesmen in the neighbourhood. The revenue of the person to whom it is paid does not so properly consist of the piece of gold, as in what he can get for it, or in what he can exchange it for. If it could be exchanged for nothing, it would, like a bill upon a bankrupt, be of no more value than the most useless piece of paper."

Coming down to more recent times, the clear-seeing mind of Bastiat perceived the same truth. In his *Harmonies Economiques; Organisation Naturelle*, p. 25, Edit. 1855, he shows how a young student at Paris receives all sorts of good things from society, and he asks what service has the young student done to society in return for all these things?—"Aucun; il se prépare à lui en rendre. Comment donc ces millions d'hommes qui se sont livrés à un travail positif, effectif et productif, lui en ont ils abandonné les fruits? Voici l'explication: c'est que le père de cet étudiant, qui était avocat, médecin ou négociant, avait rendu autrefois des services,—peut-être à la société chinoise—et en avait retiré, non des services immédiats, mais des droits à des services qu'il pourrait réclamer dans le temps, dans le lieu et sous la forme qu'il lui conviendrait. C'est de ces services lointains et passés que la société s'acquitte aujourd'hui; et, chose étonnante! si l'on suivait par la pensée la marche des transactions infinies qui ont dû avoir lieu pour atteindre le résultat, on verrait que chacun a été payé de sa peine; que ces droits ont passé de main en main, tantôt se fractionnant, tantôt se groupant jusqu'à ce que, par la consommation de cet étudiant tout ait été balancé."

So also, in his admirable little pamphlet, *Maudit Argent*, p. 80, Vol. V., of the same edition, he says:—"C'est bien le moment d'analyser la vraie fonction du numéraire abstraction faite des mines et de l'importation."

"Vous avez un écu. Que signifie-t-il en vos mains? Il y est comme le témoin et le preuve que vous avez, à une époque quelconque, exécuté un travail, dont au lieu de profiter, vous avez fait jouir la société, en la personne de votre client. Cet écu témoigne que vous avez rendu un service à la société, et de plus, il en constate

la valeur. Il témoigne, en outre, que vous n'avez pas encore retiré de la société un service *réel* équivalent, comme c'était votre droit. Pour vous mettre à même de l'exercer, quand et comme il vous plaira, la société, par les mains de votre client, vous a donné une *reconnaissance*, un *titre*, un *bon de la République*, un *jeton*, un *écu* enfin, qui ne diffère des titres fiduciaires qu'en ce qu'il porte sa valeur en lui-même, et si vous savez lire, avec les yeux de l'esprit les inscriptions dont il est chargé, vous déchiffrez distinctement ces mots: '*Rendez au porteur un service équivalent à celui qu'il a rendu à la société valeur reçue constatée, prouvée et mesurée par celle qui est en moi-même.*'

"Maintenant, vous me cédez votre écu. Ou, c'est à titre gratuit, ou c'est à titre onéreux. Si vous me le donnez comme prix d'un service, voici ce qui en résulte: votre compte de satisfactions réelles avec la société se trouve réglé, balancé et fermé. Vous lui avez rendu un service contre un écu, vous lui restituez maintenant l'écu contre un service; partant quitte quant à vous. Pour moi je suis justement dans la position où vous étiez tout à l'heure. C'est moi qui maintenant suis en avance envers la société du service que je viens de lui rendre en votre personne. C'est moi qui deviens son créancier de la valeur du travail que je ne vous ai livré, et que je pouvais me consacrer à moi-même. C'est donc entre mes mains que doit passer le titre de cette créance, le témoin et la preuve de la dette sociale. * * * Vous étiez créancier de la société, vous m'avez substitué à vos droits, et il importe peu à la société, qui est redevable d'un service, de la rendre à vous ou à moi. Elle s'acquitte en le rendant au porteur du titre."

Hence we see that all these writers, and many others might have been cited, perceive that the fundamental conception of money is that it is a pledge, that when any one has rendered some service and receives no equivalent at the time, that he may do so on some future occasion, and of what kind he pleases. Hence it is plain, that as he takes it, not for any direct use it can be to him, but only because he believes he can get what he wants when he pleases, it is general *CREDIT*, or a Bill of Exchange on the commercial community. But though such is its fundamental nature, the quantity of the substance that must be given as the equivalent of the debt, will of course be governed by the universal laws which regulate the exchangeable relations of all substances.

The necessity of having something to perform the duty of representing debts that arise from unequal exchanges, has been felt by all nations from a very early time. The Hebrews we know used silver; although there was clearly no money in the times described by the Homeric poems, soon afterwards a currency made of copper skewers came into use throughout Greece, which was superseded by the silver coinage of Pheidon. In the dialogue named *Eryxias*, which is attributed to *Æschines Socraticus*, it is said that the *Æthiopians* used a currency of carved pebbles. They must have been "blameless" indeed if they could resist so manifest a temptation to forgery. Throughout the islands in the Eastern Ocean shells were used. In Thibet, and in some parts of China to the present day, it is said that little

blocks of compressed tea are used as money. Smith says that salt is used in Abyssinia; that formerly dried cod was used in Newfoundland; sugar in some of the West Indian colonies; and in his own day, there was a village in Scotland where nails served the purpose of money. So late as the middle of the last century, in Virginia, tobacco at a certain price per pound was legal money, in which the salaries of ministers and other public officers were paid. In other of the American colonies powder and shot; in *Carpeachy* logwood; and among the Indians on the American continent, belts of wampum served the purpose of a currency.

But when we consider the purposes for which a currency is intended, it is easily seen that no substance possesses so many advantages as metal. The use of the currency being to preserve the record of services rendered for use at any future time, it is clear that it should be made of some substance which should not be liable to alter by time. A money of dried cod would not be likely to keep very long, nor would it be easily divisible. One of the first requisites of a currency is that it should be divisible into very small fragments, so that its owner should be able to get any small amount of service at any time he pleases. Taking these requisites into consideration, it is manifest there is no substance which combines these qualifications so well as a metal of some description. Metal is uniform in its texture, and it can be divided into any number of fragments, each of which shall be equal in value to another fragment of equal weight, and if required, these fragments can always be reunited, and form a whole again of the aggregate value of all its parts. By this means if we can establish a relation between the quantity of the metal and the amount of the debt; then whatever that relation be, or whatever quantity of metal be taken to represent any amount of debt, any fragment of such metal will always represent a proportionate amount of the debt.

In adopting a metallic currency, that metal which has the greatest value should be selected as the principal money. The exchangeable values of the different metals are settled exactly on the same principles as the exchangeable values of all commodities. All metals are heavy and inconvenient to carry, and if a very abundant one were selected for the purpose, the quantity which would be required to denote even a moderate amount of debt, would be a serious inconvenience. The more rare and valuable the metal, the more portable and convenient it would be, so that a man might carry about with him, as it were, a concentrated essence of power of commanding services. Of all the metals that were first discovered gold and silver combined these advantages in the greatest degree, and from the earliest antiquity the most civilised nations appropriated them for that purpose, and they gradually superseded the inferior metals and other substances used by different nations, and their exchangeable values relatively to each other, as well as to other metals and commodities, was determined.

All these currencies made of material substances we may properly call natural currencies, by which we mean, that though they are all for the purpose of representing debt, yet the quantity

of the substance which is considered as the equivalent of the debt depends purely on the general laws of value, and varies subject to their influence. We shall show a little further on that there are artificial currencies in which the substance has a value attributed to it by some agreement of some sort which it does not bear without that influence.

But although the value of the substance used for money is determined by the general laws of value, we must be carefully on our guard against saying that it has *intrinsic value*. We have fully entered into the confusion in Political Economy which has been caused by this expression under *VALUE*, so that we need not repeat what we have said there, but nevertheless we make a few remarks on it.

It seems almost superfluous to enforce it so often; but when an error is spread throughout the whole science and meets one at every turn, it requires to be constantly exposed. The value of a thing is simply and solely the thing for which it can be exchanged; and, of course, anything has as many values as things it can be exchanged for. When we speak of the value of a thing, we necessarily speak of its value in something—its value in clothes, or its value in bread, or its value in furniture, or any services whatever. How often does it require to be repeated that it is as grossly absurd to speak of anything having absolute value as it is to speak of a thing having absolute distance, and that it is equally irrational to speak of intrinsic value as of intrinsic distance! The value of the money is not the labour bestowed upon obtaining it, but the food, the necessities, and anything else which can be got in exchange for it. While money will purchase tea, and wine, and meat, and clothes, and books, and house-room, and furniture, and other things, it has value, and these things are its values. If it ceased to command them it would have no value; so if placed in a position where it would command nothing, it would have no value. Thus, if we took a bag of sovereigns among the Australian savages, they would have no value. It is clear that if there were anything else that would purchase exactly the same things that money would, it would be of the same value as money.

We must also observe this, that though money is *exchangeable* for other things, it does not *represent* them. Some eminent writers had a curious fancy that money was the representative of other things, and that a state was only well off when it had as much money as was an equivalent for all other things put together. But the slightest reflection shews that this is pure fancy, and quite contrary to the reality. What we wish to observe is that money is a separate and independent exchangeable quantity over and above other quantities of all sorts. It is a substance which has general and permanent value in a country because everyone will give something for it, and it does not depend for its exchangeability upon any particular person.

Now, as we have shewn under *CAPITAL* that any Economic quantity whatever may be used as Capital, money of course may be used as Capital as well as anything else. There are, of course, different ways of using things so as to give a profit, but anything which may be used in any

way whatever so as to give a profit may be capital, so money may be capital though it gives a profit in a different way from corn or cattle. Hence we see that Currency may be Capital.

We shall now lay before our readers a method of viewing the function of money which is slightly different from the preceding, though by no means opposed to it, and we shall then shew why one definition is preferable to the other. We need hardly remind our readers that the old fallacy was that money was the only species of wealth, and that the only true commercial policy was to heap up as much gold and silver as possible. Many persons, however, saw the fallacy of this notion, but they rushed into the opposite extreme, and maintained that money was not wealth at all, but only the representative of wealth, and therefore it was of no consequence of what material it was made of. So long as paper, for instance, they said, was based upon some material article of value, such as land or other things, they maintained that it would preserve the same value as specie. This was the doctrine upon which that theory was founded which we have called Lawism, because he had the opportunity of carrying it out into practice, and it resulted in the Mississippi catastrophe. This doctrine was supported with ingenuity by the Abbé Terrasson, a member of the Academy of Inscriptions and Belles Lettres, who was selected by Law in 1720, to defend his system. It was to reply to this fallacy that Turgot began to write. In sections 40-50 of his treatise *Sur la Formation et la Distribution des Richesses*, he has explained extremely well the true nature of money. He shews that every species of merchandize has a certain value in every other, and may be used to measure it, and in a certain way every merchandize might be used as money. But that some kinds are better than others, and that the precious metals are better for this purpose than any others, for obvious reasons. He then shewed that when a purchase is made with money, the money is not a sign of value, as was commonly said, but an actual equivalent for the thing purchased. He shews also how the use of money has greatly facilitated the division of labor. Thus Turgot shewed that money was simply a species of merchandize which was used for a particular purpose. Since his day this has been the most usual way of regarding it. It has been considered as a species of intermediate merchandize used for the purpose of facilitating indirect exchanges. Thus M. Joseph Garnier (*Eléments d'Economie Politique*, 3rd. edit. 1856, p. 14), observes that direct barter ceases as soon as nations emerge from the infancy of civilization. In civilized countries such cases are very rare, and in most, impossible. Thus a bookseller who has nothing but books, can but rarely pay his baker or his shoemaker with books. A certain peculiar species of merchandize has therefore been devised called money, which the buyers of books give to the bookseller, and which he can give again to those who sell to him. Thus, he says, barter is complicated by an intermediate exchange. This money men have agreed to make of silver, and of gold; and in civilized countries, the shoemaker exchanges his shoes for their equivalent in money, for the purpose of again exchanging this money for a hat,

it may be. The operations of the hatter are similar, and they may be represented thus :—

The shoemaker
first exchanges his *shoes* for *money*,
then exchanges the money for a hat;
which is equivalent to exchanging the shoes for a hat.

The hatter
first exchanges a *hat* for *money*,
then the money for shoes;
which reduces the operation to an exchange of a hat for shoes.

Hence, adopting this view of the operation, we see that the exchange has been resolved into two sales; such being the name of the transaction when one and not both of the quantities exchanged is money. J. B. Say very aptly said that a sale is half an exchange. It is also what is called *circulation*; and money is called the circulating medium, because it enables commodities and other things to circulate without an exchange.

Now, the two views we have presented of the nature of money are by no means contradictory; and as long as the circulating medium, or pledge for future services, consisted of a material substance like specie, it would be not of the least consequence which definition was adopted. But it happens that in modern times a circulating medium, or pledge, of a totally different nature, and which is not formed of any material substance whatever, but is a mere promise to pay, and which is called *credit*, has come into use, and so greatly exceeds the quantity of money, that the most moderate computations reckon it at at least ten times the quantity of metallic currency. Now, as we shall shew that this credit performs exactly the same functions as money, it is of course of the same general nature as money. But it would manifestly be a rather startling stretch of language to say that credit was an intermediate merchandize and an equivalent to commodities.

We shall now, therefore, show why the conception of money being a pledge for a future exchange, is more fundamental and more general than that of its being an intermediate merchandize.

We have already observed that the money which is given to make a balance on an unequal exchange of services, and to be a pledge that the owner of it may obtain what he wants when he pleases, is a separate and independent article of exchangeable property. It is exchangeable for other things, but does not represent them. The quantity of money is manifestly to be counted cumulatively to other things, although it is of no sort of use except as being able to purchase them. Now the debtor need not give a general pledge like money, if the creditor is willing to accept one of a different sort.

Supposing that on an unequal exchange taking place, the debtor owes 10lbs. of tea, then, instead of giving money, he may give his simple promise to pay 10lbs. of tea, when required. Now, it is clear that here we have a pledge to render a future service when required. And this pledge may be passed from hand to hand like money among those who choose to take it. And as it can be exchanged for 10lbs. of tea,

it is manifestly of the *value* of 10lbs. of tea. But it is not an appropriation of any specific 10lbs. of tea. It is, therefore, a pledge of the same nature as money, and a separate and independent article of property, just as money is. Now this species of property is called *CREDIT*, because the owner of this pledge only believes that he can exchange it for the tea.

Now, as we steadily adhere to the meaning of Value that it is the thing for which anything can be exchanged, it manifestly follows that the *value* of a pledge or promise to pay anything, is the thing promised.

The *value* of a pledge or promise to pay £50, is the £50.

The *value* of a pledge or promise to give 10lbs. of tea, is the 10lbs. of tea.

The *value* of a pledge or promise to cut a man's hair, is the cutting of the hair.

The *value* of a pledge, or promise to carry a letter, is the carriage of the letter.

Now, each of these pledges or promises is of course only of the value of the particular thing specified or promised; and, therefore, each of them is only particular. And it may also happen that the person who has engaged to fulfil these several promises may be unable to do so, and then of course the promise loses its value. Therefore, the value of the promise is precarious as well as particular, but that does not affect its independent existence.

Now, money is manifestly nothing whatever but an aggregate of all these particular and precarious values. Because it is a pledge that every one will answer, and consequently if any particular person fails, there are plenty of others who will supply his place.

Hence we see that Credit is the name of a species of property which has a separate and independent existence, and is fundamentally of the same nature as money. It is the representative of Debt. This credit may be exchanged, or bought and sold precisely in the same way as money itself. Hence, manifestly, Money and Credit together constitute the *currency* or *circulating medium*, that is they equally cause commodities to circulate without the necessity of an exchange.

Hence we see that the *currency* or *circulating medium* is the name of a certain species of economic quantities. But as any economic quantity whatever may be used so as to produce a profit, it follows that the economic quantities called the currency may be used to produce a profit, and so they may become capital. How credit may be used as capital is fully developed under *CREDIT*.

The only real difficulties that have caused perplexity in comprehending the nature of credit, have arisen from the apparent subtlety that the *promise to pay* a thing has an independent and separate existence from the thing promised. But the preceding explanations have, we hope, cleared up any doubt on that point, and any one who sees that he can buy things as well with a bank note as with money, can have no doubt about it. The second difficulty is somewhat more specious, and has arisen from the false views of value which have been so prevalent. Every one can see that money has value. Now, the reason given for that by the followers of

Smith and Ricardo, is that labor has been bestowed on producing it. And when they see that a piece of paper has cost, comparatively speaking no labor, they ridicule the notion of its having value. But in the first place the value of the money does not consist in the labor it has cost, but in the things it will buy, and in the second place, it is not the paper itself which has the value, but the right residing in the person of its owner. The paper is merely the evidence of the right. The right is equally valid though it merely exists in a verbal and invisible form, and is equally transferable from hand to hand. But for the sake of convenience, and to avoid disputes, and to preserve its certainty, the *evidence* of it is recorded on paper, which greatly facilitates its negotiability. And the value of this right is the thing promised, just in the same way as the value of money is the thing purchased.

Should there be any difficulty in seeing this, it will be further diminished by considering a species of currency which was formerly issued in enormous quantities by tradesmen, when there was a scarcity of legal currency. These were tokens, which were not promises to pay any specific thing, but a general promise to give out of the tradesman's general stock anything of a certain value. Now it is clear that this token was a separate exchangeable article of property, quite distinct from any particular goods; and yet it manifestly represented a debt of the tradesman's, because he only issued them in exchange for some service rendered. They were only a substitute for the Royal coin. They circulated in the neighbourhood, because the people believed that the original issuers were able to give their value in goods at any time. They were manifestly only an inferior form of money, and they must have had an independent existence as much as money.

Postage stamps are a rude form of currency. They are a right to demand the Postmaster-General to carry a letter. And the carriage of the letter is their value. But as most persons, nowadays, want to write letters, postage stamps are universally received as small change. And, as a late Act declares, that they shall be exchangeable for money at any Post Office, they are now to all intents and purposes penny bank-notes. These postage stamps are evidently a particular form of Government credit, and no one doubts that they are separate and exchangeable property over and above other property.

It is further manifest that it can make no difference in the nature of the pledge, whether it is made payable on demand, or at a certain date after its issue. There may be certain inconveniences attached to it, which may diminish its present value, but it is manifest that it in no way alters its fundamental nature as a pledge, whether it be redeemable six months hence, or three months hence, or on demand. Hence, all species and forms of credit must be included under the category of the Currency, or Circulating Medium, because their essence is, not that they shall be payable on demand, but that they circulate commodities, or other things.

The observations contained in the preceding paragraphs show that the idea of "currency" is quite independent and essentially distinct from that which we usually call "money," regarded as

an intermediate and equivalent merchandize. It is quite possible to have a currency, even though its most useful and general form, money, had never been thought of. If transactions take place between individuals, it is scarcely possible to imagine that there should not be debts, or balances of services, due, arising between them, and this is the basis of a currency. But it does not necessarily follow that there must be money. If the way of conducting commerce by way of money had never been invented, a grocer and a wine merchant might trade with each other. If they had agreed that a bottle of wine and a pound of tea should be considered as equivalents, the grocer might purchase a bottle of wine, and, if the wine merchant wanted more or less than a pound of tea, he might let the grocer have the wine, upon his giving his promise to pay the tea when required. And this note would be made transferable, and pass through a hundred different hands before the owner of it demanded tea. It would perform exactly the same function as money in circulating goods. It would, therefore, be currency, but it would not be money in the sense of being an intermediate and equivalent merchandize. Money has, no doubt, enormous advantages over such a currency, but these advantages are purchased at a very heavy cost; and in modern times, whenever public distress began to be severe, the luxury of a metallic currency is one of the first to be dispensed with. The true nature of a currency is revealed as soon as gold and silver disappear. This is well exemplified in America at the present moment, where private tickets of all sorts have superseded specie. Instead of money, people have now their pockets filled with bread tickets, and milk tickets, and railroad tickets. If a man goes to get his hair cut, and tenders a dollar, he cannot get change, but he receives so many tickets promising to cut his hair so many times.

The metallic currency is termed **MONEY**, and the paper currency of all sorts is termed **SECURITY FOR MONEY**. These securities for money, or the paper currency, are divided into two general species; first, *promises* to pay money, called **PROMISSORY NOTES**; and secondly, *orders* to pay money, called **BILLS OF EXCHANGE**. Each of these general divisions again is subdivided into several varieties, which are fully treated of under **BANK NOTE**; **BILL OF EXCHANGE**; **CHEQUE**; **CREDIT**; **DEPOSIT**; **PROMISSORY NOTE**.

The name of Currency, as we have seen, is given to something which is used as a pledge to denote the power its owner has of commanding services. Every transfer denotes an operation, because it is evident that in commerce every transfer of currency necessarily involves the transfer of something else. The amount of the sum total of all the transferences of the Currency which takes place, is properly called the **CIRCULATION**. Hence a single piece of money may add considerably to the circulation, for every time it is transferred it is an addition to the circulation, though it is no increase of Currency. We may observe that the same confusion of ideas has affected the use of the word circulation as that of currency. It is generally used as synonymous with money and bank notes, and more particularly the latter. Thus the number of notes issued by the Bank of

England, or any other bank, is frequently called its circulation. This of course is manifestly the same confusion of idea that calls money which is current, the currency. It is as great a confusion of idea as to call a wheel a *rotation*. It is clear that money and the circulation do not bear any fixed relation to each other, for there may be a large amount of money in a country, yet if the industrial operations be few, there will be a small circulation; on the other hand, there may be a small amount of money, yet if the people be active and industrious, it will pass frequently from hand to hand, and there will be a large circulation.

When transactions take place between individuals, if the interchange be of things of a like nature, as currency for currency, or commodities for commodities, it is called an *EXCHANGE*, or in the case of commodities, frequently *BARTER*. Thus we speak of the Foreign Exchanges, or the value of the currency of one country in terms of the currency of another; or we ask for the change (i.e., the 'change or exchange) of a £5 note, or a sovereign; so we speak of exchanging a picture for a statue, or one book for another. When the interchange is of things of an unlike nature, such as currency for commodities, it is called a *SALE*, and the one who gives currency is said to buy the commodities, and he who gives the commodity is said to *SELL* it. Thus we buy a horse or a house with money; so an officer *buys* a commission in the army, but he exchanges from one regiment to another. So in Lear, when Albany throws down his glove to the traitor Edmund, the latter, throwing down his own, replies "There's my exchange," meaning, like for like. So, in Hamlet, Laertes says—

"Exchange forgiveness with me, noble Hamlet."

The quantity of the currency given for the commodity is called its *PRICE*, and when the buyer of the goods transfers their stipulated price to the seller, he is said to *PAY* for them.

The subtle question whether if a fair exchange of goods were substituted for the payment of money, it was to be considered as a sale, was warmly debated for 150 years by the two famous sects of Roman Lawyers, the Proculians and the Sabinians, from the time of Augustus to that of Hadrian. Both parties appealed to Homer in support of their views, but the opinion of Proculus finally prevailed, that a *sale* and an *exchange* were operations essentially distinct in their nature. This was confirmed by the Emperors Diocletian and Maximian, and was ratified by Justinian (*Institutes* L. iii. c. 24). The conclusion was just, though the reason assigned for it was scarcely satisfactory, "that in the exchange of two things it can never appear which has been sold, and which has been given as the price of the thing sold, and it is contrary to reason that each should appear to have been sold, and that each should appear to have been given as the price of the other." It would rather appear that when we exchange one commodity for another, we exchange one whose useful qualities are known, for another whose useful qualities are also known; that is, we exchange two things which are acknowledged to be equivalents. But the currency represents an abstract quality, or right. In changing a commodity for currency we commute a known useful quality for an

abstract right; that is, we give a commodity, and receive in return only the power of obtaining an equivalent; or we exchange something that is definite, for another that is indefinite, two operations which are essentially distinct, and it is better to appropriate different expressions to operations of a different nature.

We must carefully observe that the word currency is a complex term involving two simple ideas, and we must resolve it into them. From its first representing a debt, its fundamental idea was, that it was something that denoted power of demanding services, and secondly, it also passed from hand to hand itself. Of these two ideas it must be especially observed that the former is the fundamental idea, but it has received its *name* from the latter. Resolved into its elementary ideas, it is therefore—

1. That which *circulates* commodities, &c., i. e., which causes commodities, &c., to circulate, where *circulates* is an active verb.

2. That which circulates itself, where *circulates* is a neuter verb.

From the first of these ideas it has acquired a name in modern times significant of its quality, viz., *CIRCULATING MEDIUM*.

The amount of the currency or circulating medium in any country, is the aggregate amount of it belonging to every individual. Now, whatever represents the amount of debt due to any individual, over and above his possessions in commodities, in whatever form that debt may be recorded, whether metal or paper, or whether it exist simply as a debt, is the amount of currency belonging to him. Whatever, therefore, confers the power of demanding services or commodities, or professes to confer the power of demanding them, is the currency or circulating medium of any single person, and includes, not only the current coin of the realm, but all its substitutes of every description, and whatever else represents or displaces it. Adopting this definition we may enumerate the different species of it as follows:—

1. Coined money; gold, silver, and copper.

2. The paper currency—including promissory notes and bills of exchange, with all their varieties.

3. Simple debts of all sorts, such as credits in bankers' books, called deposits, book debts of traders, and private debts between individuals.

It is certainly true that some of these descriptions of currency are more eligible and secure than others, and perform the same duties with different degrees of advantage. The metallic currency rests upon the credit of the state, that it is of proper weight and fineness, and the universal readiness of people to receive it in return for services. Paper currency, in this country at least, rests entirely upon private credit, and is of all possible degrees of security, from a Bank of England note down to a private I. O. U. There are several different kinds of paper currency possessing more or less of circulating power; but all these different descriptions of currency, though more or less eligible and secure, represent but one fundamental idea—*DEBT*. From these considerations it follows that the amount of currency, or circulating medium in any country, is the *sum total of all the debts due to every individual in it*.

It is most particularly to be observed that it is the essential quality of currency that it is a general charge of debt on the person of the debtor, or obligant, and is not a title to any specific goods. In all cases whatever, it involves the idea of personal liability. Thus, when we suppose a wine merchant to take a grocer's promise to pay so much tea when required, in return for the wine he lets him have, it must be distinctly remembered that this is only a general power to demand so much tea, and not a particular appropriation of any specific quantity of tea. The whole of the grocer's stock of tea remains his own property until the demand is made upon him for payment; consequently he can sell or dispose of it all if he pleases, which he could not do if any particular part were set aside as the property of another person, and he was merely the keeper of it.

This distinction is of the utmost importance, and it serves to shew that transferability from hand to hand is not the fundamental conception of a currency. There are certain commercial documents which, so far as negotiability is concerned, bear a resemblance to bills of exchange, and are by many supposed to be of the same nature. These are dock warrants and bills of lading. Their nature is so fully explained under **BILL OF EXCHANGE**; **BILL OF LADING**; **CREDIT**; and **DOCK WARRANT**; that we need not repeat it here. We need only observe that, by their very nature, bills of lading and dock warrants can never exceed in quantity the property they represent; but bills of exchange, and other instruments of credit, enormously exceed the quantity of coin in the country, because they are only a promise that the debtor shall pay them in money if demanded at some given time, and so the same coin may discharge an infinite number of bills of exchange in succession.

Every one now can see, we hope, that a simple abstract pledge, or right to command something, is a separate and distinct article of property from the thing itself, and may be transferred separately and independently of anything else, and is, therefore, by virtue of our fundamental axiom, an Economic Quantity. Now these pledges, or rights, or debts, being purchaseable separately, may be bought with other pledges, or rights, or debts. Thus a debt may be bought by creating another debt. Just in the same way as there are money changers for exchanging one species of coin for another, so there are debt changers, whose express business it is to buy debts by creating other debts, or to exchange one species of debt for another. These are bankers. Commercial debts are an enormous species of property, but they are in general not very well adapted for general circulation, except in a few cases; and it is the express business of bankers to buy these commercial debts by creating others of greater convenience, and better adapted for general circulation. The mechanism of this system is fully explained under **BANK** and **CREDIT**. And a point of somewhat subtle nature has arisen from these transactions. It is clear that as it is the business of bankers to buy debts by creating others, there will constantly arise a state of mutual obligation; each party will hold some of the other's pledges.

Now, it is supposed by many that when such a state of things takes place, the mutual debts should be set off against each other, and as each party owes and possesses the same sum, that the two amounts cancel, the result is zero, and the effect is just the same as if neither of these debts existed. But it is quite clear that this is an erroneous method of stating the question. A customer takes a bill to be discounted by his banker, who, we may say, lives in the country, and issues his own notes. The bill arose out of a commercial transaction, and, therefore, has circulated commodities. It is then discounted by the banker, who buys it by creating another debt, either in the form of a deposit, or a bank note. Here, then, is a new property created, with which the customer may go into the market and buy fresh goods. But it is by no means uncommon in the country for bankers to re-issue the bills they discount, with their own indorsements. Here, therefore, are two circulating or exchangeable quantities, each operating independently of the other. Hence it is quite clear that there are two existing economic quantities, and while they continue to exist and circulate separately, they must each be reckoned as an independent quantity. It may be, that after a certain time, when the bill becomes payable, the acceptor of it may pay it in the banker's notes, and then if it be in his hands there will be a mutual release or extinguishment of debts, which will then each cease to exist. But until this is done, they are each of them economic quantities as much as any others.

We may as well take this opportunity of referring to the article on Credit, § 241-247, where we have shewn that J. B. Say, who is the writer to whom most of the modern confusion on the subject of Credit is due, expressly admits the independent existence of debts, or credit, as valuable property, and classes it under the title of Wealth, and says that bills and notes have a present value, and may be made exactly of the same value as a sum of money, and used precisely in the same way, and furthermore calls it Capital. In § 248-257 we have shewn that Mr. Mill over and over again treats Credit as independent exchangeable property, which is of the value, and may perform all the functions of money. And yet these two writers ridicule those who say that Credit is Capital.

It is a matter of considerable interest to discover what are the proportions which credit and money bear to each other in modern commerce. The difficulties, however, which prevent private inquirers arriving at any reliable information are very great, and those opportunities which are presented by Parliamentary inquiries into Commercial Crises are very rarely made use of for any but their immediate purpose. In the Report, however, of the Committee of the House of Commons on the Commercial Crisis of 1857, there occurs a very interesting statement, made by Mr. Robert Slater, the managing partner of the great house of Morrison, Dillon, and Co. Having analysed the operations of the house for the year 1856, he gave in the following statement as shewing the proportions in which each million of payments and receipts were made in money, bank-notes, and other instruments of credit:—

RECEIPTS.		£	£
In Bankers' Drafts, and Mercantile Bills of Exchange, payable after date	583,596		
In Cheques on bankers, &c., payable on demand	357,715		
In Country bankers' notes	9,627		900,938
In Bank of England Notes	68,554		
In Gold	28,089		
In Silver and Copper	1,486		
In Post Office Orders	938		
			99,062
		£1,000,000	
PAYMENTS.		£	£
By Bills of Exchange, payable after date	302,674		
By Cheques on London Bankers ...	663,672		966,346
By Bank of England Notes	22,743		
By Gold	9,427		
By Silver and Copper	1,484		
			33,654
		£1,000,000	

Here we have it shewn that in this great house, which there is no reason to suppose we may not consider a fair representative of commerce in general, it appears that in receipts, gold and silver only entered to the extent of 3 per cent., and Bank of England notes to the amount of less than 7 per cent.; the remaining 90 per cent. being entirely in credit. Of the payments, gold and silver were only 1 per cent., and bank notes 2 per cent., the remaining 97 per cent. being effected by pure credit. In Scotland specie enters even in a far less degree into payments. This will give some idea of the stupendous power of credit in this country.

The Opinions of various Writers on the Nature and Extent of the Currency.

Within the last thirty or forty years strong differences of opinion have manifested themselves among economists as to the nature and extent of the currency. It may be said, we think, that these discordances have arisen from writers not well ascertaining the true philosophical import of the terms they use. We shall now place before our readers the opinions of various persons of eminence on the subject. Whenever we clearly understand that the true function of the currency, or circulating medium, is to circulate commodities, &c., i.e., to obviate the necessity of barter, or exchange, by substituting a pledge of future payment of some sort in place of an actual equivalent, there can be no reasonable doubt but that currency must include money and credit in all its shapes and forms; and such was the opinion of speakers and writers until a comparatively recent period, when an influential sect sprung up, who restricted the term currency to money and bank notes payable to bearer on demand, and excluded all other forms of credit from it.

We shall first place before our readers the opinions of several writers who held the former opinion, and then examine the opinions of those who hold the latter view, and the reasons they allege in support of it.

The discussions on the nature of currency had not arisen in Smith's time. The name itself was new. What we call paper currency he usually calls paper money, which is an error, the two being very different. But it is manifest that he includes all forms of credit under the title of money, or currency.

We have already shown under CREDIT, § 231—236, that Adam Smith includes credit under the title of capital. He specifies money as one form of circulating capital, and under the title of money he includes all forms of paper credit. Thus he says, B. II., c. ii.—“Money, therefore, the great wheel of circulation, the great instrument of commerce, like all other instruments of trade, though it makes a part, and a very valuable part of the capital.” He then speaks of the substitution of paper for specie, and says,—“There are several different sorts of paper money [currency]; but the circulating notes of banks and bankers are the species which is best known, and which seem best adapted for this purpose.” Now, what can the other species of paper currency be, except bills of exchange, &c.? Cheques had only just begun to be used in London a few years before the publication of the *Wealth of Nations*, and the probability is that Adam Smith had never seen a cheque when he wrote his work, but manifestly they are included under his designation. In B. III., c. i., he says,—“The great commerce of every civilised society is that carried on between the inhabitants of the town and those of the country. It consists in the exchange of rude for manufactured produce, either immediately, or by the intervention of money, or of some sort of paper which represents money.” Now what sort of paper, besides bank notes, does this mean, but bills of exchange and cheques?

The controversies about the meaning of currency and circulating medium seem to have begun about the time of the Bank Restriction Act, in 1797. In the debate on that measure (*Parl. Hist.* vol. xxxiii. p. 340), Mr. Fox said that he wished “that gentlemen instead of amusing themselves with new terms of circulating medium and the like.” In his reply Mr. Pitt said, “As so much had been said on the nature of a circulating medium, he thought it necessary to notice that he did not, for his own part, take it to be of that empirical kind which had been generally described. It appeared to him to consist in anything that answered the great purposes of trade and commerce, whether in specie, paper, or any other term that might be used.” Hence we see that Mr. Pitt expressly included all forms of Credit under the term Circulating Medium.

The next writer we may cite is Mr. Henry Thornton, one of the authors of the Bullion Report. In his *Inquiry into the Nature and Effects of the Paper Credit of Great Britain*, he says, p. 40—“A multitude of bills pass between trader and trader in the country in the manner which has been described; and they evidently form, in the strictest sense, a part of the circulating medium of the country.” And in a note on this passage he says—“Mr. Boyd, in his publication addressed to Mr. Pitt on the subject of the Bank of England issues, propagates the same error into which many others have fallen, of considering bills as no part of the circulating

medium of the country." After quoting a passage from Mr. Boyd, which is given below, he says—"It will be seen, in the progress of this work, that it was necessary to clear away much confusion which has arisen from the want of a sufficiently full acquaintance with the several kinds of paper credit, and in particular to remove, by a considerable detail, the prevailing errors respecting the nature of bills, before it could be possible to reason properly upon the effects of paper credit."

We may next quote from a speech of the Marquis of Titchfield, in 1822, on Mr. Western's motion regarding the Act of 1819. He said—"Economy of money was by contrivances to spare the use of it, according to the description of his right honourable friend, by substitutions for the precious metals in the shape of voluntary credit. Every new contrivance of this kind, and every one improved, had that tendency. When it was considered to how great an extent these contrivances had been practised, in the various modes of verbal, book, and circulating credits, it was easy to see that the country had received a great addition to its currency. This addition to the currency would, of course, have the same effect as if gold had been increased from the mines." Here, therefore, we see it explicitly stated that credit in all its shapes and forms was independent exchangeable property, of the value of, and producing the same effects as gold.

We may now consider the opinions of those writers who have taken a different view of the matter.

Mr. Walter Boyd is the first that we are aware of who confined the term currency to money and bank notes. He says (*Letter to Mr. Pitt, p. 2*)—"By the words 'means of circulation,' 'circulating medium,' and 'currency,' which are used almost as synonymous terms in this letter, I understand always ready money, whether consisting of bank notes or specie, in contradistinction to bills of exchange, Navy bills, Exchequer bills, or any other negotiable paper, which form no part of the circulating medium, as I have always understood the term. The latter is the *circulator*; the former are merely *objects of circulation*."

A few traces of this opinion may be discovered in certain writers after this period; but as this view was most prominently brought forward before the Committee of 1840, we may pass at once to that.

Mr. J. B. SMITH, President of the Chamber of Commerce of Manchester, said that he thought circulation and currency were the same (Q. 40); that deposits were currency, which was, in fact, another word for liabilities.

Q. 70. Mr. O'Connell—"There is another description of paper in circulation, namely, bills of exchange; do you include those also in your description of the currency?—I do not consider bills of exchange as currency."

Q. 71. "What is the difference between a bill of exchange which is passing from hand to hand and commanding property in return for it, and a bank note which is performing the same functions, supposing each to be for £100?—I consider a bill of exchange to be a debt."

Q. 72. "Is not a bank note a debt?—The difference between a bill of exchange and currency would be this, that currency would discharge the

debt; the payment of a bill of exchange is not the discharge of a debt till it is due."

Q. 78. Mr. Smith—"Supposing this case to happen, that the same bill of exchange passed through a banker's hands six times in one day on the account of different persons having accounts with this bank, should you not say that that bill of exchange discharged the functions of currency?—It is a mere transfer, after all, from hand to hand, with, every time it is endorsed, an additional security."

Q. 79. "Supposing it not to be endorsed, can you point out the difference between that and a Bank of England note?—The difference between a Bill of Exchange and a Bank of England note in any transaction, is, that a Bill of Exchange is a debt, and it continues a debt till it is discharged by a Bank of England note, or by some other currency, which is a full discharge of the debt."

Q. 80. Sir R. Peel—"What does a Bank of England note profess upon the face of it; is it not 'I promise to pay'?—Precisely so."

Q. 81. "Is not that evidence of a debt?—Certainly, but it is legal tender."

Q. 82. "Supposing a law were passed permitting a gold circulation to continue, and prohibiting the issue of notes by the Bank, do you not think the measure which traders would resort to, would be to supply the deficiency by Bills of Exchange?—It is probable, it might be so."

Q. 83. "Would not they answer the purposes of Currency?—Bills of Exchange do not perform the functions of Currency, but they are instruments by which commodities are exchanged, equally with every other mode of Credit, but requiring money for their discharge."

Q. 84. "Though there is a difference in the nature of the transactions between the issue of a note, payable on demand, and the passing of a bill of exchange, is there any substantial difference in their sensible effect on the currency of the country?—I do not think that Bills of Exchange affect the Currency, though the Currency has a very important influence on Bills of Exchange."

Q. 87. "Do not you recollect, that during the Bank restriction law, there did not remain a circulation of Bank of England notes in parts of Lancashire for the discharge of small payments, but that in point of fact, the great commercial transactions of Lancashire were carried on by the intervention of Bills of Exchange, performing the ordinary functions of currency by means of promissory notes?—Unquestionably, and a very large amount of these payments are still in existence."

Q. 88. "When payments do take place by these means, do not bills of exchange answer, in a great measure, the functions of promissory notes, though there is a difference in the character of the transaction between a bill of exchange and a promissory note?—Yes, they are a medium for the exchange and distribution of commodities, no doubt."

Q. 89. "They are the representatives of commodities?—Yes; they are representatives of transactions in commodities."

Q. 90. "Then are they not currency?—No, I do not think that follows."

Q. 91. Mr. O'Connell—"What is currency but an instrument of Exchange?—It is an instrument

of exchange, but it is an equivalent also for commodities.

Q. 92. "A bill of exchange performs that function, it assists to exchange commodities?—Yes, a bill of exchange assists in the exchange and distribution of commodities.

Q. 93. "Then it has that function of currency?—Yes, it has.

Q. 94. "Then having that function of currency, which, perhaps, is the only function, can you distinguish that from currency? What is there in your mind to induce you to say that that is not currency which performs the functions of currency?—I have already explained that the difference between a bill of exchange and currency is this, that the one discharges a debt and the other does not.

Q. 95. *Mr. Warburton*—"If a party receiving a bill of exchange indorsed, were to give a receipt in full for the payment of the debt, would not that bill of exchange perform precisely the same functions as a bank note does?—Yes, but it would be merely a party consenting to accept a debt due from another person in full discharge of the debt due to himself.

Q. 96. *Mr. Herries*—"Is not that a very common proceeding in trade?—I am not aware of that; if I am asked whether parties accept bills of exchange for debts, that is a fact, but whether they accept them in full discharge of a debt contracted, I am not aware.

Q. 97. *Mr. Gisborne*—"Do you consider a £10 note of a country bank, a joint stock bank, to rank under currency, or to rank under bills of exchange?—Under currency.

Q. 98. *Mr. Grote*—"Suppose there was a seven day post bill issued by a banker, would you consider that a part of the currency?—No.

Q. 99. *Mr. Labouchere*—"Suppose it was a seven day post bill issued by the Bank of England?—No, not until discharged.

Q. 100. *Mr. O'Connell*—"A cheque on the Bank is currency in London, is it not?—It performs the function of currency; it is a transfer of currency from one to another.

Q. 118. *Mr. Wood*—"Will you define what you mean as constituting the entire currency of the country?—I should define currency to be gold and silver, or the promises of bankers to pay on demand, which either constitute a legal tender, or which the public are willing to accept in lieu of coin in discharge of debts; I consider the currency in this country to consist first of coin in circulation; secondly, of Bank of England notes issued against bullion, and of Bank of England notes issued against securities; thirdly, of deposits in the Bank of England, payable on demand, the same as bank notes; fourthly, of notes issued by the Country Banks; and fifthly, of deposits in country banks in their own notes, which are of the same character as deposits in the Bank of England."

As to the meaning of deposits, and the general confusion as to the way in which they arise, see *DEPOSIT*. The witness was further examined at immense length, but the above gives the substance of his opinions.

Mr. Cobden was of opinion that no inflation of the currency would arise from bills of exchange, provided the money of the country were not previously inflated. There is a great distinction

between a bill of exchange and a bank note. A bill of exchange follows the trading transaction, and is merely a voucher for the transaction, in the shape of a transfer of the debt, or an acknowledgment of the debt; but a bank note put into circulation either in the purchase of public securities or in a loan, or in any other way, goes to the artificial creation of commercial transactions, and is not itself necessarily originated by the transaction. Bills of exchange can multiply only in proportion to commercial transactions, provided the currency be kept as a metallic currency.

Mr. Cobden said that with a metallic currency there would be no risk of any great extent of accommodation bills; an opinion which we think is scarcely warranted by the reality.

Q. 572. *Mr. Smith*—"Inasmuch as bills of exchange are used at Manchester as an instrument of exchange, do they not form part of the currency?—No; I have defined currency to be money; I cannot call a bill of exchange money; it is a promise to pay money at a certain time, and it is a security only for a certain time, after which all securities are forfeited."

Mr. W. R. Ward (Q. 674) considered currency to be coined gold, silver, and copper, and notes payable on demand, issued by the Bank of England and country banks.

Mr. Richard Page understood currency to mean the current money of a country, in which debts are discharged and commodities purchased and sold, and consisted of Bank of England notes and gold and silver. Country bank notes he considered only to be money by courtesy. He included deposits in the Bank of England; but as he gave to the word "deposit" an inaccurate meaning, we do not know what he would have done if he had understood the real meaning.

Mr. George Warde Norman, a Director of the Bank of England, was asked:—

Q. 1691. "Are there any grounds for considering the deposits of the Bank of England as currency?—No, I think not.

Q. 1692. "Do you consider that any deposits, merely in their character of deposits, can be considered as currency? No, I do not.

Q. 1693. "Will you state what, in your opinion, forms the distinction between currency and deposits?—I consider that, looking broadly at deposits and currency they are quite distinct; they have little to do with each other; but I conceive that the use of deposits is one of the banking expedients, which is available for economising currency, along with a great many others. I do not consider them as currency or money. I ought to observe, perhaps, to the Committee, that I employ the words 'money' and 'currency' as synonymous. Deposits are used by means of transfers made in the books of bankers; and these afford the means of adjusting and settling transactions, and *pro tanto* dispense with a certain quantity of money; or they may be set off against each other, from one banker to another, to a certain extent, and thus produce the same effect. Still they possess the essential qualities of money in a very low degree.

Q. 1694. "Do you entertain a similar opinion as to bills of exchange?—Yes, exactly; I think they are also used to economise currency; I look upon them as banking expedients for

that purpose; but they do not possess fully the qualities which I consider money to possess.

Q. 1695. "Will you explain the difference between the functions which money will perform, and those which bills of exchange or deposits will perform?—To answer that question fully, one must, I am afraid, take rather a wide view; but I look upon it that the three most essential qualities money should possess are, that it should be in universal demand by everybody in all times and all places; that it should possess fixed value; and that it should be a perfect numerator. There are other qualities; but I think these are the most essential. Now, when I look at all banking expedients, I find they do not possess these qualities fully. They possess them in a very low degree; and therefore, as we see took place in the autumn of 1835, with a very large increase of the deposits of the Bank, the circulation diminished, and there was every appearance of the effects of contraction; there was an increased influx of treasure, and I conceive from that there were lower prices. By a numerator I mean that which measures the value of other commodities with the greatest possible facility. If we look at all these banking expedients, we see that they possess the three qualities which I have mentioned in a very much lower degree.

Q. 1696. "Will you state in what respect?—I can only take them one by one. A bill of exchange is an instrument commonly payable at some future time, at a certain place, and to some particular individual; it is of no use to any other individual except it is indorsed to him; a man cannot go into a shop with a bill of exchange and buy what he wants; he could not pay his labourers with a bill of exchange. The same with a banker's deposit, he can do nothing of that sort with that; he can do with less money than he would otherwise employ, if he has bills of exchange, or bankers' deposits; but he cannot, with bills of exchange and bankers' deposits, do whatever he could with sovereigns and shillings. By a banker's deposit, I mean a credit in a banker's books; nothing more nor less than that."

MR. SAMUEL JONES LOYD, now LORD OVERSTON, was asked:—

Q. 2655. "What is it that you include in the term circulation?—I include, in the term circulation, metallic coin, and paper notes promising to pay the metallic coin to bearer on demand.

Q. 2661. "In your definition then, of the word circulation, you do not include deposits?—No, I do not.

Q. 2662 "Do you include bills of exchange?—No, I do not.

Q. 2663. "Why do you not include deposits in your definition of circulation?—To answer that question, I believe I must be allowed to revert to first principles. The precious metals are distributed to the different countries of the world by the operation of particular laws, which have been investigated and are now well recognised. These laws allot to each country a certain portion of the precious metals, which, while other things remain unchanged, remains itself unchanged. The precious metals converted into coin constitute the money of each country. That coin circulates sometimes in kind; but in highly advanced countries, it is represented to a certain extent by paper notes, promising to pay the coin to bearer

on demand; those notes being of such a nature in principle, that the increase of them supplants coin to an equal amount. Where those notes are in use, the metallic coin together with those notes, constitute the money or currency of that country. Now this money is marked by certain distinguishing characteristics; first of all, that its amount is determined by the laws which apportion the precious metals to the different countries of the world; secondly, that it is in every country the common measure of the value of all other commodities, the standard by reference to which the value of every other commodity is ascertained, and every contract fulfilled; and thirdly, it becomes the common medium of exchange for the adjustment of all transactions equally at all times, between all persons, and in all places. It has further the quality of discharging these functions in endless succession. Now I conceive that neither deposits nor bills of exchange in any way whatever possess these qualities. In the first place, the amount of them is not determined by the laws which determine the amount of the precious metals in each country; in the second place, they will in no respect serve as a common measure of value, or a standard by reference to which we can measure the relative value of all other commodities; and, in the next place, they do not possess that power of universal exchangeability which belongs to the money of the country. If the committee will allow me to refer to it, there is a passage in the report of the French Chambers which has recently been appointed to inquire into a subject very similar to that which this committee is now investigating, which seems to me to put the point of the universal exchangeability of money in a very striking way. 'Si l'on réfléchit en effet aux innombrables transactions commerciales qui s'opèrent chaque jour, depuis celles qui doivent fournir aux plus modestes consommations jusqu'à celles qui multiplient les spéculations, les plus entreprenantes du commerce international, on s'aperçoit aisément qu'elles ne s'accompliraient pas sans le secours d'une valeur intermédiaire qui puisse être mise successivement en rapport avec toutes les autres valeurs, et servir entre elles de moyen d'estimation et d'échange.'

Q. 2664. "Why do you not include bills of exchange in circulation?—I exclude bills of exchange for precisely the same reasons that I have stated in my former answer for excluding deposits. There is another passage in the same report which appears to me to shew very clearly that the French Chamber have fully appreciated the distinction between bills of exchange and money. 'Tout engagement par écrit de payer une somme due a pu devenir ce signe du numéraire; le signe a acquis quelques-uns des avantages de la monnaie circulante, lorsque, comme le billet à ordre et la lettre de change, il a pu être transmis par la voie facile et prompte de l'endorsement. Mais que d'entraves encore! Il ne représente pas à tout moments pour son détenteur la somme pour laquelle il a été souscrit elle peut n'être payable qu'à un terme éloigné, pour le réaliser immédiatement il serait nécessaire de la céder. Trouvera-t-on quelqu'un qui soit assez confiant pour l'accepter? On ne le transmettra qu'en le garantissant de sa signature; c'est une obligation éventuelle que l'on contracte

soi-même, et sous le poids de laquelle jusqu'au jour de l'échéance, on sentira son crédit gêné. On n'est pas toujours disposé à révéler la nature de ses affaires par les signatures que l'on met en circulation ces inconvénients devaient conduire à trouver un signe de numéraire plus actif encore et plus commode, qui participât, comme la lettre de change et billet à ordre, des qualités de numéraire métallique, puisqu'il n'a d'autre mérite que de le représenter mais qui permet de s'en procurer à tout moment; qui, comme la pièce de monnaie se transmet de main en main, sans avoir besoin d'être garanti, sans laisser de traces de son passage. Le billet au porteur et à vue, émis par des associations puissantes, formées sous l'autorisation et agissant sous la surveillance continuelle des gouvernements a paru présenter ces avantages. De là les banques de circulation.

Q. 2665. "Under similar circumstances, will the aggregate amount credited to depositors in bankers' books bear some relation to the quantity of money in the country?—During temporary fluctuations in the amount of circulation, all other things remaining unchanged, I conceive the amount of deposits will be affected by such fluctuations.

Q. 2666. "Is the amount of bills of exchange dependent in some degree on the quantity of money?—I apprehend that it is dependent in a very great degree. I consider the money of the country to be the foundation, and the bills of exchange to be the superstructure raised upon it. I conceive that bills of exchange are an important form of banking operations and the circulation of the country is the money in which these operations are to be adjusted; any contraction of the circulation of the country will of course act upon credit; bills of exchange being an important form of credit will feel the effect of that contraction in a very powerful degree; they will in fact be contracted in a much greater degree than the paper circulation.

Q. 2667. *Sir Robert Peel*—"What are the elements which constitute money, in the sense in which you use the expression 'quantity of money?' What is the exact meaning you attach to the words 'quantity of money—quantity of metallic currency?'—When I use the words quantity of money, I mean the quantity of metallic coin and of paper notes, promising to pay the coin on demand, which are in circulation in this country.

Q. 2668. "Paper notes payable by coin?—Yes.

Q. 2669. "By whomsoever issued?—Yes.

Q. 2670. "By country banks as well as other banks?—Yes.

Q. 2671. *Chairman*—"Would this superstructure, consisting of sums credited to depositors in bankers' books and bills of exchange, equally exist, although no notes payable in coin on demand existed in the country?—Yes, I apprehend that every question with respect to deposits, and with respect to bills of exchange, is totally distinct from the question which has reference to the nature of the process of substituting promissory notes in lieu of coin, and of the laws by which that process ought to be governed. If the promissory notes be properly regulated, so as to be at all times of the amount which the coin would have been, deposits and bills of exchange, whatever changes they may undergo, would sustain

those changes equally, either with a metallic currency, or with a paper currency properly regulated; consequently, every investigation respecting their character or amount is a distinct question from that which has reference only to the substitution of the paper notes for coin.

Q. 2672. "There would be no reason why, if there were no notes payable in coin on demand, the amount of this superstructure should be less than it now is, with a mixed circulation of specie and of notes payable on demand?—None whatever. I apprehend that, upon the supposition that the paper notes are kept of the same amount as the metallic money, the question of the superstructure, whether of deposits or of bills of exchange, remains precisely the same.

Q. 2673. "That answer takes for granted that, in the first case, the metallic currency, and in the second case the metallic currency, plus the notes payable on demand, are the same in quantity?—Yes.

Q. 2674. *Sir Robert Peel*—"You suppose the notes payable on demand to displace an amount of coin precisely equal to those notes?—They ought to do so under a proper regulation of the paper money, otherwise they are not kept at the same value as coin.

Q. 2675. *Mr. Attwood*—"Would you consider that the superstructure of bills of exchange, founded entirely upon a metallic currency, might, at particular times, become unduly expanded?"—The answer to that question depends entirely upon the precise meaning of the word unduly, I apprehend, undoubtedly that it is perfectly possible that credit, and the consequences which sometimes result from credit, viz., overbanking in all its forms, and the over-issue of bills of exchange, which is one important form of overbanking, may arise with a purely metallic currency; and it may also arise with a currency consisting jointly of metallic money and paper notes promising to pay in coin; and I conceive further, that if the notes be properly regulated, that is, if they be kept at the amount which the coin otherwise would be, whatever overbanking would have arisen with a metallic currency, would arise and to the same extent, neither more or less, with money consisting of metallic coin and paper notes jointly.

Q. 2676. "May not overbanking and over-issue of bills of exchange, forming a superstructure based upon money composed of metal and paper notes, derange the certainty of the notes being duly paid in gold?—I apprehend that if the paper notes be properly regulated, according to the sense which I have already attributed to that expression, and if a proper proportion of gold be held in reserve, the solidity of the basis cannot be disturbed; that is, that if there be a proper contraction of the paper notes as gold goes out, the convertibility of the paper system will be effectually preserved by the continually increasing value of the remaining quantity of the currency, as the contraction proceeds.

Mr. Tooke was asked—"In using the term 'circulation' of the Bank of England, what do you include in that term?—I include in that term only the Bank notes in the hands of the public. In order to avoid confusion, perhaps the Committee would allow me to state the meaning which I attach to the different terms 'currency'

and 'circulating medium.' The currency I consider to be, in strictness of language, according to the apparent derivation of the term, that part of the circulating medium, such as the coin of the realm, and Bank of England notes and country bank notes (although not a legal tender) which pass current from hand to hand, without individual signature, such as appears on drafts or endorsements. I am doubtful whether cheques on bankers might not be included, from their perfect similarity to Bank notes, in many of the purposes for which they are employed; at the same time there is the feature of distinction which I have mentioned, viz., that cheques require the signature of the party passing the draft, and that they do not pass from hand to hand. Bills of exchange I consider as a part of the general means of distributing the productions and revenues of the country, and therefore as constituting a part of the circulating medium. I consider, also, that the simple credit by which goods are in many instances bought and sold, come likewise under the general description of the circulating medium, in as far as the prices of commodities are in question; because a simple contract of sale, whether any payment eventually passes or not, is commonly entered in the price currents without distinction from those for which any actual payment is made. I cannot consider that transferable debts constitute circulating medium, but only the actual transfers.

Q. 3279. "What do you mean by transferable debts?—The deposits in the hands of bankers, against which the depositors are entitled to pass their drafts.

Q. 3280. *Mr. Grote*—"You include not simply transfers of deposits in the hands of the Bank of England, but also transfers of deposits in the hands of other bankers?—Yes; transfers of deposits generally.

Q. 3221. *Chairman*—"Do you then consider a deposit to be a transferable debt owing by the banker to the depositor?—Yes.

Q. 3282. "In the use of the term 'currency' in your future examination, do you propose, in addition to coin, Bank of England notes and country bank notes, to include cheques upon bankers?—Yes; I think upon the whole the distinction I have mentioned is not sufficient to exclude them, and therefore I shall propose to consider them as included.

Q. 3283. *Mr. Warburton*—"By cheques, you mean cheques actually drawn, and passing from one person to another?—Yes; that which is current in fact.

Q. 3284. "Will you be good enough to state what you propose to include in the word 'circulation' in the course of your future examination?—I propose to include in the term 'circulation' the notes of the Bank of England, and of country banks, payable on demand.

Q. 3285. "What do you mean by 'circulating medium'?—I mean all instruments of interchange by which the productions and the revenue of the country are distributed; everything which serves and is received as a mode of payment, or which constitutes nominal money-price which appears in price currents.

Q. 3286. "*Mr. Grote*—There is the currency and there are also certain expedients for economizing the use of the currency; you would call

both one and the other of those, portions of the circulating medium?—Precisely.

Q. 3287. "Do you include, in the word 'currency,' bills of exchange?—No.

3288. "If you include, in the term 'currency,' a crossed cheque payable at a banker's, to be presented therefore at the clearing house, and having therefore before presentation not more than seven or eight hours to run, why is it that you do not include in the term 'currency' a bill of exchange payable also at a banker's, falling due to-morrow, and having, probably, not more than about 24 hours to run?—It is only a question of the general acceptance of the term; there is no essential distinction in the particular case. I may perhaps be allowed to say, that the only question as to the employment of different descriptions of circulating medium is referable to the combined considerations of economy, convenience, and security.

Q. 3289. "If the cheque, according to the supposition in the former question, be included in the term 'currency,' will not a bill of exchange due to-day, payable at a banker's, be entitled also to be included in that term?—It is only a question of convenience in the classification; I am not aware that it is of any importance in practical operation.

Q. 3290. "Bills of Exchange having, previous to maturity, one, two, three, four or more days to run, differ in character by insensible degrees from a crossed cheque, a crossed cheque being that bill which has the shortest time to run?—They differ in character by insensible degrees, and likewise in the trifling difference of convenience from their not being used till maturity, unless under a calculation of discount.

Mr. Tooke then started a theory which, like many others, is true in some cases, and which we believe he was the first to notice, but which he pushed to an extreme, which drew out some just strictures from Colonel Torrens.

Q. 3292. *Mr. Hume*—"Will you state what part of the currency or circulating medium affects prices, under the definitions which you have now given?—No one part of them affects the prices of commodities more than any of the other parts.

Q. 3293. *Mr. Grote*—"Do you mean not more in degree, or not in any different way?—Not more in degree.

Q. 3294. "You mean that every portion of that which you have described under the name 'circulating medium' is perfectly equal to every other portion in the effect which it produces upon prices?—Perfectly so.

Q. 3295. *Mr. Hume*—"Do you mean that every transaction of purchase or sale by any of the means which you have mentioned, as included in the circulating medium, equally affects prices?—Yes; and that was my reason for caring so little about making a distinction among them; I doubt whether they operate upon prices at all.

Q. 3296. *Mr. Grote*—"You mean that none of these items which you have enumerated under the general term 'circulating medium' have in your opinion any effect upon prices?—Yes; I mean that they are not operative causes of prices.

Q. 3297. *Mr. Hume*—"What is it, then, which does affect prices?—The cost of production limiting the supply on the one hand, and the pecuniary

means of the consumer limiting the demand on the other.

Q. 3298. "Will not the variations in the quantity of the circulating medium affect prices?—No.

Q. 3299. "Will it not, if abundant, be more at the disposal of individuals for purchases than when it is scarce?—It will be more easily disposable, but it will not be necessarily so disposed of. I believe that the amount of the circulating medium is the effect, and not the cause, of variations in prices."

Such are the various opinions and arguments brought forward to draw a distinction between bills and notes as currency, and we may now examine them seriatim.

I. *That Bills of Exchange are only the Evidence of a Debt.*

This is equally true of Bank Notes, and we have seen that money itself, by the acknowledgment of a long series of writers, is itself nothing more than the evidence of debt. It is a general Bill of Exchange upon all the commercial community; and is only the highest and most general form of credit. The payment of a Bill in money is [only the exchange of a particular and precarious instrument of credit for a general and permanent one.

II. *That Bills of Exchange do not discharge Debts, but they require to be paid in Currency.*

It is a very great error, indeed, to say that Bills of Exchange do not discharge debts. We have said something more below about the effect of taking Bills of Exchange for debts. But Bills of Exchange the day they become payable, are payable on demand like cheques and bank notes, and they are set off against each other among bankers, and at the Clearing House in London, to the amount of several millions daily. They discharge each other by mutual set-off, just in the same way that notes and cheques do. There are, besides, other ways in which Bills are paid, as is fully shewn under *Banks* § 32 and *Credit* § 208. A Trader, when his bills become due, discounts fresh bills with his banker, who creates fresh credit, and bills are paid by giving cheques on this credit.

Mr. NORMAN said that money or currency should possess fixed value, and be a perfect numerator. But how can money or any thing possess *fixed* value, when its value is changing from hour to hour?—An instrument of credit may preserve an equality of value with respect to money, but not with respect to anything else, unless it is expressed to be payable in it. He said that he meant by a numerator that which measured the value of other commodities with the greatest facility. Why does a promise to pay £50 measure the value of things with less facility than £50 itself?

Mr. LOYD's doctrines will be more fully considered under *CURRENCY PRINCIPLE*, where the arbitrary assertions on which that doctrine rests are examined. It is not a little amusing to find the celebrated phrase of the Roman Catholic Church—*Quod semper, quod ubique, quod ab omnibus*, starting up and meeting us in a discussion on currency. In Mr. Loyd's opinion money and currency are identical, and include the coined

metallic money, and the paper notes promising to pay the bearer coin on demand; and, he says, that the characteristic of their being money is, that they are received equally at '*all times, between all persons, and in all places.*' For the sake of shortness, let us designate this phrase by 3A, from the three alls in it. He excludes Bills of Exchange from the designation of currency, because 'they do not possess that power of universal exchangeability which belongs to the money of the country.' This definition is fatal to Mr. Loyd's own view. In fact, if it be true, there is no such thing as money or currency at all. In the first place, it at once excludes the whole of bank notes. The notes of a bank in the remote district of Cumberland would not be current in Cornwall, *therefore* they are not 3A's, *therefore* they are not currency. Again, the notes of a bank in Cornwall would not be current in Cumberland, *therefore* they are not currency. Similarly there are no country bank notes which have a general currency throughout England, *therefore* no country bank notes are 3A, *therefore* no country bank notes are currency. Till within the last thirty years or so, Bank of England notes had scarcely any currency beyond London and Lancashire; in country districts a preference was universally given to local notes, *therefore* Bank of England notes were not 3A, they had not a power of 'universal exchangeability,' *therefore* they were not currency. Bank of England notes would even now not pass throughout the greater part of Scotland. If *therefore* the test of 3A and 'universal exchangeability' be applied, the claims of all bank notes to be considered as currency are annihilated at once. The acceptance of a Baring or a Rothschild would be received in payment of a debt by a far larger circle of persons, than the notes of an obscure and remote country bank.

But the universality of Mr. Loyd's assertion is fatal to his argument in other ways. On the Continent, silver is the legal standard of value; in England, silver, like copper, is merely coined into small tokens, called shillings, &c., which are made to pass current above their natural value, and are only legal tender for a very trifling amount, hence it cannot be used in the adjustment of *all* transactions, *therefore* it is not 3A, *therefore* it is not currency. There are other countries where gold is not a legal tender, *therefore* it fails to satisfy Mr. Loyd's test, *therefore* it is not currency. If then the test proposed by Mr. Loyd be considered as correct, it is easy to see that there is no substance or material whatever that will not fail under it, and *therefore there is no such thing as currency.*

The fact is that the only difference between a Bill of Exchange and a Bank Note is, that the former is a promise of a deferred payment and the latter that of an immediate one, and there is less risk in taking the latter than the former. From these circumstances a Bank Note possesses a greater *degree* of circulating power than a Bill of Exchange. But in the midland counties of England it used to be quite common for the banks to issue the Bills of Exchange they had discounted with their own indorsement upon them. In which respect they were in every way equivalent to Bank Notes; moreover, there is not the same inducement to put a bill into circulation as a

Bank Note, because the former increases in value as the day of payment approaches. But it is unprofitable to keep a note idle. But it is to the last degree unphilosophical to maintain that these two obligations are of different *natures*, because they are adapted to circulate in different *degrees*.

We may quote from Colonel Torrens, as he expresses a view that is by no means uncommon, but which is quite erroneous. He says (*The Principles and Practical Operation of Sir Robert Peel's Act of 1844, explained and defended*, p. 79) "The term money and currency have hitherto been employed to denote those instruments of exchange which possess intrinsic or derivative value, and by which from *law or custom* debts are discharged and transactions finally closed. Bank Notes payable in specie on demand have been included under these terms as well as coin, because by law and custom the acceptance of the notes of a solvent bank, no less than the acceptance of coin, liquidates debts and closes transactions; while Bills of Exchange, bank credits, cheques, and other instruments by which the use of money is economised have not been included under the terms money and currency, because the acceptance of such instruments does not liquidate debts and finally close transactions."

It is upon such views as these that the opinion of those rests who maintain that Bills of Exchange are not currency or circulating medium. They suppose that Bank Notes pass without indorsement, and that Bills of Exchange do not. Even if that were true, it would not be any valid ground for the distinction, because such a thing would in no way affect the nature of the instrument. It is wholly untrue to suppose that Bank Notes and money are the only things which close transactions. By the table given above, it is seen that upwards of 96 per cent. of commercial payments and receipts were made by Messrs. Morrison and Co. in instruments of Credit, other than Bank Notes.

But it is a very great mistake to say that Bank Notes pass without indorsement, and Bills of Exchange do not. At the time the Bank of England was founded, it was quite illegal for any such thing as promissory notes to pass by assignment. The negotiability of Bank Notes had to be provided for by the Act. It was enacted, *BANKING IN ENGLAND*, § 72, x., that all the Bank's bills obligatory and of credit, made or given to any person, might *by indorsement of such person* be freely assigned to any person who should voluntarily accept them, and so by such assignees *toties quoties* by indorsement thereon, and all such assignees might sue thereon in their own names.

The assignment of the goldsmiths' notes, or the private bankers' note, was held to be illegal much later than this. In 1703, *BANK NOTE* § 39, it was decided that no promissory notes were assignable or indorsable over within the custom of merchants. In 1704, the act was passed which allowed promissory notes to be assigned by indorsement like Bills of Exchange. It is true that the *custom* of indorsing Bank of England Notes, and it is probable country bank notes too, soon fell into disuse, but that makes no difference in the *law* of the subject.

The case of *Miller v. Race* has often been

quoted in support of the Doctrine, that Bank Notes are money or currency, to the exclusion of Bills of Exchange, but the true bearings of that case have been completely misunderstood. The case is fully discussed under *BANK NOTE* § 37-45 where it is shewn that the whole point turned on how the property in a stolen note would pass, and it was held that it would pass like that of a stolen Bill of Exchange. It had long been held that, for the convenience of commerce, the innocent holder for value of a stolen Bill should be able to retain it against the former owner, just as if it were money, to which this principle had long been applied. By the case of *Miller v. Race* this principle was *extended* to Bank Notes, and it has been confirmed by numerous cases since. The only effect of this case was that the principle which Bills had in common with money, was now held to extend to notes, so that, if there be any force whatever in it, it proves that Bills were held to be currency long before notes.

It is also an error to suppose that Bills of Exchange require an indorsement at each transfer. A Bill of Exchange may be made payable to bearer, and then it requires no indorsement at all. Bills, however, are generally drawn payable to order, and then they require that the payee should indorse them; but he may do that without making himself liable on them, as is done in many cases. After the first indorsement in blank, the Bill is payable to bearer, and may be passed by mere delivery, in all respects like a Bank Note. "And," says Mr. Justice Byles (*A Treatise on the Law of Bills of Exchange*, &c., 8th Edit., p. 146), "a transfer by mere delivery, without indorsement, of a Bill of Exchange or promissory note made or become payable to bearer, does not render the transferer liable *on the instrument* to the transferee."

"And it is conceived to be the general rule of the English law, and the fair result of the English authorities, that the transferer is not even liable to refund the consideration, if the bill or note so transferred by delivery, without indorsement, turn out to be of no value by reason of the failure of the other parties to it. For the sending to market of a bill or note payable to bearer without indorsing it, is *prima facie* a sale of the bill. And there is no implied guarantee for the solvency of the maker, or of any other party."

"If a bill or note, made or become payable to bearer, be delivered without indorsement, not in payment of a pre-existing debt, but by way of exchange for goods, for other bills or notes, or for money transferred to the party delivering the bill at the same time, such a transaction has been repeatedly held to be a sale of the bill by the party transferring it, and a purchase of the instrument, with all risks by the transferee. 'It is extremely clear,' says Lord Kenyon, 'that if the holder of a bill send it to market without indorsing his name upon it, neither morality, nor the law of this country will compel him to refund the money for which he sold it, if he did not know at the time that it was not a good bill.' So where A gave a bankrupt, before his bankruptcy, cash for a bill, but refused to allow the bankrupt to indorse it, thinking it better without his name, and afterwards, on dishonor of the bill, proved the amount under the commission, the Lord Chancellor ordered the debt to be

expunged, observing, that this was a sale of the bill. So, if a party discounts bills with a banker, and receives, in part of the discount, other bills, but not indorsed by the banker, which bills turn out to be bad, the banker is not liable. 'Having taken them without indorsement,' says Lord Kenyon, 'he has taken the risk on himself. The bankers were the holders of the bills, and, by not indorsing them, have refused to pledge their credit to their validity; and the transferee must be taken to have received them on their own credit only.' So where, in the morning, A sold B a quantity of corn, and, at three o'clock in the afternoon of the same day, B delivered to A, in payment, certain promissory notes of the Bank of C, which had then stopped payment, but which circumstance was not at the time known to either party. Bayley, J., said, 'If the notes had been given to A at the time when the corn was sold, he could have no remedy upon them against B. A might have insisted on payment in money, but, if he consented to receive the notes as money, they would have been taken by him at his peril.' Such seems the general rule governing the transfer by delivery, not only of ordinary Bills of Exchange and Promissory Notes, but also of Bank Notes. Nor is there any hardship in such a rule, for the remedy against the transferer may always be preserved by indorsement, or by special contract."

While it has always been acknowledged that the delivery of a bill without indorsement, in exchange for a valuable consideration, is a sale of it, it has frequently been said that, if the bill be indorsed, it is only a loan. We have pointed out the ambiguity of the word *loan* under CREDIT § 61. It is often said that a banker lends his customer money on the security of bills. But this is an inaccurate mode of statement. What the banker does is to buy a debt due to his customer, and when he indorses the bill, his customer gives him a limited warranty of its soundness. If the banker lent his customer the money it would be his duty to repay it. But that is not so. It is the acceptor's business to pay the bill, and if he do not do so, the banker may, by giving his customer immediate notice and making a demand, make his customer take back the bill, and repay the money. But if the banker fail in giving immediate notice his remedy against his customer is gone.

But the *Law of Continuity* shews the fallacy of the doctrine that Bank Notes payable to bearer on demand alone are currency. Mr. Loyd rigorously restricts the term to such notes. But would not notes payable one minute after demand be currency? or one hour? or two, or three, or four hours? Would not notes payable one day after demand be currency? or two or three days? Mr. Loyd denied that Bank post bills which are issued, payable seven days after sight, are currency. According to this doctrine, if a man deposits money in the Bank and receives in exchange for it a Bank Note payable on demand—that is currency; but, if he ask, for his own convenience, for a note payable seven days after sight—that is not currency! But the note becomes payable on demand on the seventh day after sight, and then, by their own definition, it is currency. What was it before? It used formerly to be

the custom for banks in the country to issue notes payable 20 days after demand. These notes circulated and produced all the effects of money. What were they, if they were not currency? Cheques are payable on demand. How are they not currency as much as notes? How are Bills of Exchange not currency on the day they become payable? And, if they are so then, what were they before? It is quite plain that there can be but one answer. They are all species of currency, though differing in degree, and the distinction between them is untenable.

It would be too long to mention the host of writers who have expressly included all forms of paper credit under the title currency. Mr. Mill truly says there is no generic distinction between bills and notes. We rejoice to say that M. Michel Chevalier is entirely of the same opinion as ourselves. In his treatise *La Monnaie*, sect. 3, ch. v., after shewing the untenable nature of the distinction set up between Bank Notes and Bills of Exchange, he says—"La langue Anglaise a un mot générique qui embrasse la monnaie, le billet de banque, le papier-monnaie on assignat non convertible en espèces, et tout autre espèce de titre qu'on peut mettre dans la circulation et qu'accepte plus ou moins le commun des hommes: c'est le mot de *currency*. Notre langue n'en offre pas l'équivalent parfait. Cependant le terme de *numéraire* pourrait être pris dans le même sens, et je l'emploierai ainsi dans la suite de cet écrit." And in the number of the *Journal des Economistes* for August, 1862, in which the same distinguished writer has published the substance of a Report to the Imperial Institute of France on our *Elements* and this work, he re-affirms the same opinion. After explaining the ideas contained in the former part of this article, he says—"A ce même point de vue, et sous le bénéfice de ce commentaire, la relation intime qu'établit M. Macleod entre la notion de la *currency*, et l'idée d'une dette ou d'une obligation sérieuse et positive a un mérite incontestable."

But, while we contend that Lord Overstone's criterion of a currency is fatal to his own view, we are quite willing to accept it. For what is it that exists in all places, in all times, and among almost all persons? *DEBT, or SERVICES DUE.*—And what is it that is universally required to measure, record, and transfer them? *Some material.* But we see that all currencies are more or less local, none are universal. The idea, or the want alone is universal. The notes of a country banker, only circulating in his own neighbourhood, are like a country *patois*, each district has its own. A national currency rises to the dignity of a language. But even that is only local, on a larger scale. The ideas only expressed in the language are universal. We are therefore strengthened in our conviction, that the only true idea of a currency is, that it is the *Representative of Transferable Debt*, and that *whatever represents Transferable Debt is Currency.*

On Paper Currency, or Paper Credit and Paper Money.

The currencies made of the various substances we have spoken of, were what we may call natural currencies, that is, the substance being selected, it found its exchangeable relations with other things according to the general laws of

value. There is no instance that we are aware of, except one, in ancient times, of what we may call an artificial currency, like that of paper, which has played such an important part in modern times. The only artificial currency that is spoken of, we believe, in ancient times, is that mentioned in the *Eryxias*, a dialogue, which passes under the name of *Æschines Socraticus*. In discussing the nature of wealth, the author, under the name of Socrates, says:—"For the Carthaginians, for instance, use money of this sort; in a small piece of leather something is sewed up of the size of a stater. But what that is which is sewn up no one knows, except those who did so. Then a stamp is put on it, and they use it as money; and whoever has most of this seems to possess most wealth, and to be most opulent. But if any one had ever so much of it amongst us, he would be no richer than if he had so many pebbles from the mountain."

Such is the only meagre notice we have of a fact of considerable interest. We are left entirely in the dark as to who were the issuers of this money, and what were its conditions. The Greeks had some knowledge of credit in its simplest form, that of a direct and simple loan of money, but there is no trace, that we are aware of, of the distinguishing feature of credit, viz., putting the debt itself into general circulation. The Romans invented cheques upon bankers, and therefore, to a certain small extent, we may suppose that they practised the transferability of debts. It is to the Chinese that belongs the unquestionable merit of inventing circulating credit. They also first experienced the miseries caused by the abuses of paper money.

We have already, under **BANKING**, § 570, quoted from Klaproth an account of the first Chinese bank notes. But the subject of Chinese money is treated at great length by M. Edouard Biot in four memoirs in the same periodical, the *Journal Asiatique*, Vol. XXX., p. 422; and Vol. XXXI., pp. 97, 209, and 441. These memoirs detail at considerable length the complete monetary system of the Chinese from the earliest times, both metallic and paper; but we shall confine ourselves here to the paper money. It is sufficient to say that the Chinese Emperors ran through the same course of depreciating their coinage, and with the same results, as took place in European countries many centuries afterwards.

According to the ancient Chinese chronicles, barter prevailed in that country in the earliest ages, as among all nations. The first currency used was shells, as in India and the South Sea Islands. These shells were called *pei*, and the memory of their use is preserved, as the Chinese character for a shell is used as the sign of riches, and is an element in all words relating to wealth and buying and selling. Between the twenty-fourth and the twelfth centuries before the Christian era it is stated that three metals, yellow, white, and red, were used as money. These were gold, silver, and copper, or, as some say, iron.

Some historians say that Iu, the founder of the Hia dynasty, established three classes of money. The first included pearls and jade; the second gold; and the third *pou* and *tao*, though it is not very well understood what these were. Some of it was also called *houey*, or tortoiseshell,

because it is supposed that tortoiseshell was originally used as money.

About the eleventh century B.C. the Emperors made great efforts to insure a uniformity in the medium of exchange. One of the nine great officers of state was called *tsuen-kouan*, or Officer of the Coinage. The word *tsien* or metallic money was afterwards used. The highest species of money was ordered to be gold, in cubes of one *tsun* to the side, and weighing a *kin* or Chinese pound. The *tsun* is calculated to be 20^{mm} French, and the *kin* to be 166 grammes. Copper money was also struck, round and pierced with a square hole, for the convenience of stringing it. The copper unit was called *chu*, and was the 384th part of the pound, but the value of the two metals is not stated. Besides this, cloth and silk were used as money, and called *pou-pe*. The unit of this was called *py*, and was about eight metres long and 0^m.44 wide.

Various changes took place in the coinage which we must pass over. In 230 B.C., Thsin-chi-hoang reduced all China under his power, and ordered a uniform coinage throughout the Empire, gold and copper were the only legal money. The circulation of silver, tin, jade, pearls, and tortoiseshell was suppressed.

The year 807 A.D. is memorable as that in which that wonderful agent paper currency was invented. Great troubles had agitated the Empire, attended with their usual effect of disorganizing the coinage. The Emperor Hian-tsung ordered the merchants to deposit their specie in the Imperial Treasury, and gave them Bills of Exchange, called *fey-t sien* or flying money, payable at the principal towns of the provinces. The convenience of these bills was so great, and so soon appreciated, that all the great officers of the state and rich men hastened to deposit their specie in the Treasury, and receive *fey-t sien* in Exchange. For some reason this system was abolished in three years. In 811, the public officials reported that since the abolition of the *fey-t sien*, private persons had begun to hoard up their money, which had become so scarce that prices were falling. In consequence of this, merchants were permitted to deposit salt and iron at the *hou-pou* or Finance Offices, and receive *fey-t sien* in return. These *fey-t sien* were used as Bills of Exchange between the Capital and the Provinces.

In 970, during the reign of Tai-tson, there was great monetary disorder, and the old expedient of *fey-t sien* was revived. Merchants were invited to deposit their specie in the public treasury, and they received bills payable in the principal towns of the Empire. These were called *pien-t sien* or convenient money. The plan was received with the greatest favor, the specie flowed in, and the issues of paper greatly increased. Similar banks were established in the provinces, and soon became very large. The *pien-t sien* were made legal tender in commerce. In 997, the Government had received in deposit 1,700,000 taels of silver. In 1021, the sum had increased to 2,830,000 taels, equal to about 21,225,000 francs.

These issues were made by the Government, and we see that they were merely in exchange for a similar amount of bullion. This was, therefore, an example of the "Currency Principle."

But, about the same time, the first issues of private circulating paper took place. A certain Tchang-yang seems to have been the inventor of this terrible engine. In the province of Chu, which is the modern Sse-tchuen, the money was made exclusively of iron, and was, of course, very inconvenient. Tchang-yang issued bills called *tsy-ichy*, and also *kuen*, to represent this iron-money. Under the reign of Teking-tsong, from 997-1022, this invention spread greatly. Private bank notes, called *kiao-tseu*, payable every three years, were allowed to be current for sixty-five years. They were for a tael of pure silver. A joint-stock company of sixteen of the richest merchants was formed, with power to issue such notes. The company at first succeeded very well, but new and inexperienced members having replaced the older ones, the company became bankrupt, and caused much misery and litigation. The *kuen* or *tsy-ichy* were payable in a different place to where they were issued. They thus resembled Bills of Exchange in their origin. The *kiao-tseu* were like bank notes, but only payable once in three years.

This bank, the first joint stock bank of issue, failed in 1017, but the invention was found to have so many conveniences, that a commission was appointed to report whether the State might not found a bank of *kiao-tseu*. The Commission reported in favor of the plan, and in 1023, a State Bank was founded at Y-tcheon, the capital of Chu. It issued notes payable every three years, as the former ones, and all private issues were forbidden. In 1032, it was found that its issues were 1,256,340 taels, or about 9,422,550 francs. The edict founding it ordered that it should have a capital of 360,000 taels in specie. The *pien-tien* gradually disappeared before the *kiao-tseu*. In 1060, punishment of death was enacted against forgers of *kiao-tseu*.

In 1069, the Government established a Bank of *kiao-tseu*, at Lou-tcheon, in the province of Ho-tong. In 1070, it founded a similar one in Chen-sy to pay the army contractors in *kiao-tseu* instead of *tchao*, or short dated bills, as they had been used to. The contractors were so discontented that the Government had to give up the plan, but the bank was kept up.

The *kiao-tseu* were redeemable in three years. The holder might have specie or new bills at his option. They seem to have been so popular, that in 1072, when seventeen of the twenty-two terms had expired, only 6,340 taels of paper had been paid off, and it was decided to create a new series of *kiao-tseu* of twenty-five terms, to the amount of 1,250,000 taels, to redeem the old series. In 1076, on pretence that the merchants made too great profits at the expense of the Government, the issue of *kiao-tseu* was suspended in Chen-sy. In 1094, it was observed that trade had drawn a large number of *kiao-tseu* to Chen-sy, and the province where they were issued was in want of them. To remedy this a creation of 150,000 taels for one term of three years was allowed.

In 1102 issues of *kiao-tseu* were resumed in Chen-sy. In 1107 those of Sse-tchuen were replaced by other obligations, called *tsien-yn*. About this time the abuses of paper money, which have been so frequently practised in modern times, began. The Tartars were now invading the country; and the Chinese Emperors

had no resource except to create immense issues of *kiao-tseu*. A new series was created, payable every year, of which one of the new was equal to four of the old. The *kiao-tseu* were replaced by *tsien-yn* of forty-three terms, payable every year. In all commercial payments above 10,000 *tsien* one-half was ordered to be paid in *tsien-yn*, and one-half in copper. These orders created great discontent among the people. Each *tsien-yn* of 1,000 *tsien* had fallen to 100. In 1107-1121 the banks for the issues of *tsien-yn* were relieved from the necessity of cash payments, and the issues were enormously increased. The *min* of 1,000 *tsien* had now fallen to 10 *tsien*. Shortly after this they were suppressed. They never circulated in Fo-kien, Kiang-tche, or Hou-Kouang; but chiefly in King-tong-si, Hoai-nan, and Cai-fong-fu, where the court was, and the northern provinces, where there was always a scarcity of money to carry on the war.

In 1131, after the Tartars had conquered the northern provinces, the money was in the greatest disorder. To pay the troops new bills, called *kouan-tseu*, were created, which were payable in the interior. But when the time for payment came, the government could only pay one third part of their value, and so they fell to a heavy discount. In 1133 new issues were made.

In 1158, under the same Emperor, the copper vessels of private persons and of the religious sects were confiscated. In 1160 the officers of state were not allowed to have more than 20,000 *min* or 150,000 francs in money, and private persons half as much. All gold and silver was ordered to be brought to the treasury; and in exchange bills for tea, salt, and other things were given. In 1159 new state bonds, called *kouan-tseu* and *kong-kue* were created, the former for three years, and the latter for two. The provinces Hoai-sy and Hon-kouang received 800,000 taels, or 6 million francs, of the former; Hoai-tong received 400,000 taels of the latter. They were divided in notes equal to 750 and 7,500 francs.

In 1160 new bills, named *hoei-tseu*, were issued on bullion in the Treasury; and the government declared that they would only use them in the purchase of the annual supplies of salt and other necessaries, and not for state expenses. In 1162, death was denounced against forgers of these bills. Each bill was for 1000 pieces, (or 7.50 francs,) and was called a *tao*. Their circulation was at first limited to Liang-tche, but it was soon extended to Tche-kiang, Hon-kouang, and Pe-king-sy. The government paid half in specie, and half in *hoei-tseu*, and ordered the same in private payments. In 1163, the new Emperor Hiao-tsung created *hoei-tseu* of 500, 300 and 200 pieces (or 3.50, 2.25, and 1.50 francs). No term of payment was mentioned, and so they rapidly fell to a heavy discount. In 1166, the Emperor issued 1,000,000 ounces of silver to buy them up.

In 1137, a report stated that in Chu or Sse-tchuen, which was the parent of paper money, there was a mass of 37,800,000 of taels in circulation, or 284 millions of francs. In 1160, it had increased to 41,470,000 taels or 311 millions of francs. The iron specie amounted to 700,000 taels, or 5,250,000 francs.

In 1167, a minister reported to the Emperor that from 1160, to the second month of 1166, more

than 28 millions of *tao* had been issued. Of *hoei-tseu*, and during that year, 15,600.00 more *tao* had been issued, and it appeared that the Treasury paid out each month from six to seven hundred thousand taels, or from 4.5 to 5.25 million francs, for the expenses of the state. On the other hand the Generals refused every thing but specie, and the Governors of the provinces refused the state paper in payment of taxes. This greatly depreciated their value. The paper on which they were printed was so bad, that five millions wanted to be renewed. The Government said it would issue new notes at the rate of 100 *tsien* for every 1000 *tsien* of the old ones. This new fraud greatly increased the public distrust.

In 1168, the exchange of the old for the new *hoei-tseu* began. They had an échance of three years like the *kiao-tseu*, and each series amounted to ten millions *taels*, or 750 million francs. A commission of 2 per cent. was charged on the exchange. But only the old ones which had the words *kouan* (thousand) and *pe* (hundred) still legible, were exchanged at their nominal value. The verifiers had to distinguish the forged notes, and trace them to their first issuer, for which they received a large recompence. The old ones were only allowed four months to be exchanged, after that they were not to be current.

In 1175, the necessity for funds to carry on the Kin war made the government resort to measures which ruined commerce and public credit. The tax collectors imputed the scarcity of money to the merchants, who were forbidden to export any. Every merchant vessel was searched before leaving by a special officer who gave it a passport. But the merchants embarked their specie in little boats before the visit of the inspector, who probably took care not to see too much. Severe penalties were denounced against all who took away money, but in 1179, these severe decrees could not be carried out; and merchants were allowed to take with them a small quantity of specie.

The government by several decrees in 1176, put off the payment of the several series of *hoei-tseu* till 1197. In 1195, Ning-tsong declared that each series of *hoei-tseu* should consist of thirty millions of *min*, or 225 million francs. In 1200, it was found that the quantity of bills called *tchuen-yn* in circulation was more than fifty-three million of *min*, or three hundred and ninety-five million francs; and besides that there were an almost equal quantity of bills at three terms.

In 1163, the government had created a local paper money, to circulate in the provinces on the river Hoai. The *hoei-tseu* were prohibited in these provinces; and at the tolls on the river, tickets were issued to serve as an intermediary between the two currencies. Copper money was forbidden in these provinces, and iron only was allowed. The people were so discontented that the decrees had to be rescinded. In 1221, more than 300,000 *min* of this local paper money was issued. The Government always tried to emit the greatest quantity of paper money in the districts exposed to the attacks of the enemy.

It appears that since 1160, no paper money had been redeemed, except with fresh paper, which reduced the credit of the Government to a very low ebb. All the state officials, civil and military, were paid in paper. The army was in

want of necessaries. Taxes were only paid in paper. Copper money was regarded as a rarity, and, of course, the more the paper was depreciated, the more the price of food rose. Some feeble efforts were made to improve the public credit by coining copper, but the quantity was very small, and it was much debased. In 1210, the Government sent a quantity of gold and silver to Sse-tchuen, where a new issue of thirteen million *min*, in bills, had greatly depreciated them. The *tchuen-yn* of 1,000 pieces had fallen to 400 and 100 pieces. The specie sent was sufficient to buy up thirteen million *min* of *tchuen-yn*, and their value rose to 500 pieces of iron in Sse-tchuen. Beyond this province the paper was only worth 170 pieces.

For nearly a century, the Niu-tchy, who had conquered the north of China, had followed the example of the Chinese, and created a paper money, in their kingdom of Kin, which was called *kiao-tchao*. They made the tributary provinces pay in nothing but copper, and they paid themselves only in paper. This paper was issued with an échance of seven years, when it was promised to be paid in specie. But, of course, this could not be done, and the paper money fell to a discount.

The Chinese historian says, "Paper should not be made money; it should only be used as a representative sign of metallic values, or necessaries, which should be immediately exchanged for specie, and economise its transport. Such was the original use of paper among merchants. The Government, adopting this invention from private persons, made it into money; and then abused its original intention." The same writer says, in another place, that in a country which had no medium of exchange, except copper and iron, the use of paper as a bill of exchange, or note payable to bearer, was of great use in commerce. But the Chinese Government, whose rapacity had committed so many frauds on the coinage, could not respect this useful invention, when the cost of the war made a continual demand for money. It only maintained its engagements during the period of the first issue of *kiao-tseu*, at Y-tcheon; that is, for about seventy-five or eighty years.

The Kin Government was attacked by the Mongols and the Chinese, and it resorted to the same devices of issuing paper money. The depreciated *kiao-tchao* were replaced by *pao-kuen*, *thong-pao*, *pao-tsen*, *tchin-ho*, which were printed on silk, and by *pao-hoei*. These were all species of inconvertible paper money. The last mentioned were from 1 to 4 *tsien*, that is, from .7 to 3 centimes.

No more metallic currency was made in China till 1276, when the Soung dynasty was overthrown. The only currency was the depreciated *hoei-tseu*. In 1235 a minister speaks of two species of *hoei-tseu*, at sixteen and seventeen terms, and complains of their daily increasing depreciation, and the rise of necessaries. In 1256, in order to diminish their number, it was ordered that the wine duties should be received in them, and then they were to be burnt. In 1265 the *hoei-tseu* were so utterly depreciated, that a new paper money was created, called *hien-trien-kouan-tseu*. There was also a species called *yn-kouan*, or silver notes. The Government issued one of these last to redeem three *hoei-tseu* of

eighteen terms; and received the *hoi-tseu* of seventeen terms in payment of the grain it sold to the people, and then burnt them. This was the last effort of the Soung dynasty; and China then fell under the Mongolians, greatly owing to the demoralization caused by the misery produced by the paper money.

Many of the officers of the Mongolian king, Ogodai (1227—1248), had urged him to issue *kiao-tchao*, in imitation of the Kin kings. His minister, however, Ye-lin-tchou-tsai, had warned him of the danger of paper money; and told him that the paper was refused in payment of taxes, and, in consequence, was so depreciated, that a cake of rice cost 11,000 *min*, or 75,000 francs. He advised that if the king was determined to issue paper money, its value should not exceed 10,000 *ting* of silver, or about 750,000 francs. This sage counsel, however, was not observed. In 1260, Koblai, or Chi-tsow, the first Mongol Emperor, who conquered all China, issued *kiao-tchao*, which were already depreciated one half. In the same year new issues were made, called *tchong-tong-yuen-pao-tchao* of several sorts, besides some printed on silk, called *tchong-tong-yen-ho*. In 1264, banks were erected throughout the empire for the issue of these notes. In 1276, new notes, called *li-tchao*, being little more than a centime or two. In 1279, these issues were stopped, but the old ones continued in circulation, though at a constantly increasing depreciation. In 1288, new issues were made, in which one new note was given for five of the same nominal value of the old. Thus the Government defrauded its creditors of eighty per cent. of their debts.

It was at this period that the celebrated Venetian traveller, Marco Polo, visited China; and discovered the existence of this paper money. In b. ii., c. 18, he gives an account of its manufacture. He says that it was made in Kanbalu. The inner rind of the mulberry tree was steeped and pounded in a mortar, and then made into paper, resembling that made from cotton, but quite black. It was then cut into pieces nearly square, but of different sizes. The smallest were of the value of a Denier tournois; the next for a Venetian groat; others for two, five, and ten groats; others for one to ten gold besants. Several officers had to subscribe their names, and place their seals on each note, which was then stamped with the royal seal dipped in vermilion. Counterfeiting was a capital offence. It had then a forced currency, and no one dare refuse it on pain of death. Caravans of merchants arrived with their goods, which they laid before the king; who selected what he pleased, and paid them in this money. When any one wished to exchange old money for new, it was done at the Mint, at a charge of three per cent. If any one also wanted gold or silver for manufacture, they could obtain bullion at the Mint in exchange for the paper. He also mentions many cities where he observed this money.

In 1309, the Emperor Won-tsung, seeing the paper much depreciated, issued a third species, called *tchi-ta-yen-tchao*; which, in fact, replaced the old at a depreciation of eighty per cent. Although some coinages of metal were issued, this paper was the only money recognised by the Government till the end of the Mongol dynasty. From 1341-1367, new issues were made which

were to replace the old ones, and were called *kiao-tchao* of the period *tchi-teng*, as if the new ones were better than the old. But no one would take them. During this period, insurrections broke out in every quarter, which the author of the work *Tsao-mou*, which is a continuation of *Matan-lin*, attributes to the general discontent caused by the abuses of paper money by the Mongols. But he does justice to the proper use of paper. He recalls the excellent effects which the creation of the *kiao-tseu* by Tchang-yang had previously had in Sse-tchuen. "Then," says he, "it was ordered that at the offices of the rich merchants who managed the enterprise, when the notes were paid in the money came out, when the bills came out the money went in. The money was the mother, the note was the son. The son and the mother were reciprocally exchanged for each other." Thus we see, that even the famous CURRENCY PRINCIPLE was invented in China 500 years ago! This is just the doctrine of some modern writers, that the sole duty of a bank is to exchange specie for paper and paper for specie. It was not so, however, under the Mongols who sought to make the Chinese take their paper by force, and took away all their specie, and then, by wounding the Chinese to the quick, took away their courage. The Mongols spent the money they had extorted from the people on foreign luxuries, and being thus enervated, they were expelled in 1368 from the country which they had held nearly a century.

It was during this period that the famous English traveller, Sir John Maundeville, visited China, and he gives an account of the paper money there. He says (*Travels*, p. 239. Edit 1839) speaking of the Emperor of Cathay or China—"This Emperour may dispenden als moche as he wile with outen estymacioun. For he despendethe not, ne makethe no money, but of lether emprented, or of papyre. And of that money is som of gretter prys, and som of lesse prys, afre the dyversite of his statutes. And whan that money hath the ronne so longe, that it begynneth to waste, than men beren it to the Emperoure's Tresorie, and than thei taken newe money for the old. And that money gothe thorghe out all the contree, and thorghe out all his provynces. For there and beyond hem thei make no money nouthor of gold nor of sylver. And therefore he may despende ynow and outrageously."

The Emperor Hong, the founder of the Ming dynasty, tried to restore a metallic currency, but in 1375 the finances were in such disorder, that the Imperial Council ordered notes, called *ta-ming-pao-chao*, or paper money of the great Ming. Each *tchao* was worth an ounce of silver, or 7.50 francs. It was ordered that four of these should exchange for one ounce of gold. Thus the proportion of gold to silver had varied from 10 to 1 to 4 to 1. Private persons were forbidden to use gold and silver in commerce, but were ordered to bring it to government, and receive *tchao* instead. The *tchao* and the copper money were received in payment of taxes. In 1393 three offices were erected in the Eastern provinces, to each of which 30,000 *ting* (300,000 Chinese ounces, or 2,500,000 francs) were sent to be issued.

In 1403, the *tchao* of the Mings had fallen to a heavy discount. The Emperor Tching-tsou re-

newed the prohibition to use gold and silver in exchanges, whosoever did so was to be punished as forgers of the Imperial ordinances.

In 1426, the *tchao* which were worn out were called in. In 1450, Ya-tsong forbade even copper money to be used in commerce. In 1455, his successor, King-ty, ordered all the current *tchao* to be called in and burnt. In 1467, Chun-tsong ordered all payments, both private and public, to be made, one half in specie and one half in *tchao*.

The last time the *tchao* are mentioned in history is in 1489, when the Emperor Hiao-tsong issued a decree against the government officials and rich men speculating in *tchao*. After this, metallic money seems to have been brought into circulation. In 1576, silver was generally used in commerce. In 1593, in a work called *Souan-fa-tong-tsong*, which is a collection of treatises on arithmetic and geometry, prices are usually estimated in silver ounces, but sometimes in *tchao*. In one place 500 paper ounces are estimated as equal to one silver ounce, though in another place the depreciation stated is not so great. In the introduction *tchao* are mentioned as legal tender as well as silver. Then from 1160 to the end of the 16th century inconvertible paper money had a forced currency in China, and displayed exactly the same phenomena as have been so often seen in modern times in Europe and America.

In 1644, the Mantchous or Tartars conquered all China, and seeing that the paper money was quite discredited, and had been one of the great causes of the overthrow of the Ming dynasty they totally suppressed it. In this they proceeded to the other extreme, and great destruction to commerce was caused by the prohibition to use anything but specie in any transaction. The Tartar Government has never issued anything but specie, but it is certain that there are Banks in China which issue notes, as an account is given of some in the Chinese Repository for 1846. But that only describes those issued in one town, and we have no knowledge how far their use is general.

We have given this account of Chinese paper money because we are not aware that any account of it has ever been published in English, and it may probably be new to our readers to learn that all the phenomena which have been displayed in Europe and America by the issue of paper money, were exhibited in China many centuries ago. We even find that there were strenuous advocates for the "Currency Principle" in China 500 years ago. We have not, however, been able to discover whether they had banks for the purpose of discounting bills of exchange. They had issues of paper in exchange for specie, and also government paper money, but we do not find that they had what we call a solid paper credit, that is instruments of credit created for the purpose of facilitating commerce, and then extinguished; which is the only system of paper which is not followed by depreciation.

The first paper money that we are aware of in Europe, was that issued by the City of Milan, in the 13th century, mentioned by Cibrario, who quotes Giulini *Memorie di Milano*, VII. 540. This issue was paid off, and we do not find that the Italian cities ever again availed themselves of so obvious, but so dangerous an expedient.

We need not load our pages with circumstantial accounts of the paper money of other countries, such as Russia, Austria, &c., as the story is the same in all. The history of the Assignats, Law's Mississippi scheme, and the paper money of the American colonies, furnish ample materials to study the pathology of the subject without repeating the wearisome details.

The nearest approach to paper money which has been in England, were the issues of the Bank of England during the Revolutionary war. But the government strenuously repudiated the name of paper money, and Bank Notes were never actually made legal tender. The issues were never made by the Government but by the Bank, who, as may be seen in the history of Banking in England, resisted the importunities of Mr. Pitt. If Mr. Pitt had had the power in his own hands, it seems probable that he would have run just the same course as so many others have done, before and since. When the Bank stopped in 1797, it was expected that the notes would fall to a heavy discount, as they had done in 1696, but this did not happen. No sensible depreciation took place till 1801, when the great scarcity of coin, and the demand for gold caused by the commercial crisis in Germany, coupled with the absurd usury laws, which prevented gold finding its natural price here, caused immense quantities to be exported. This, of course, raised the paper price of gold. Lord King, and other able writers, then called public attention to the fact, and proclaimed the doctrine, which was perfectly well understood in America 60 years before, that the rise of the market price of specie was, in fact, the proof and the measure of the depreciation of the paper. In a year or two, however, the market, or paper, price fell to about £4, and the depreciation being so slight was comparatively little felt. But Cobbett continued to maintain the doctrine that it was depreciated, in his Register. Gold continued at about £4 in paper per ounce till 1809, when the country banks having multiplied to an inordinate extent, and the Bank of England having immensely extended its issues, and thereby fostering an extravagant commercial speculation, the paper price of gold began rapidly to rise. It was at this period Ricardo, who had attained a distinguished position on the Stock Exchange, came forward and republished the doctrines of Lord King, that the high price of bullion was the proof of the depreciation of the paper. This pamphlet appeared at a fortunate period for the author, as the increased price of gold rapidly became serious, and attracted the attention of Parliament. In 1810, the celebrated Bullion Committee was appointed, which adopted the doctrine that the rise of the market price of gold and the fall of the foreign exchange was the proof and the measure of the depreciation of the paper. The recommendations of the Report were rejected by Parliament, and the price of gold continued to rise till 1815. In that and the following year there was a great destruction of country banks, and a vast amount of their issues being cleared away, the value of the remaining paper rose very nearly to par, and continued so till the end of 1818, when, owing again to the mismanagement of the Bank, it became depreciated for a year or so.

Table shewing the chief variations in the Market Price of Gold Bullion from 1790 to 1819, and the real value of the Bank Note during the restriction.

	Market Price of Gold Bullion.	Real Value of the Bank Note.
	£ s. d.	£ s. d.
Jan. 1790	3 17 6	1 0 0
to Aug. 25, 1797		
Sept. 1, 1797		
to Oct. 19, 1798	3 17 10½	1 0 0
Oct. 26, 1798		
to Sept. 18, 1799	3 17 9	1 0 0
Sept. 20, 1799		
to April 6, 1804	No Quotation.	
April 13, 1804	4 0 0	0 19 6
to Oct. 15, 1805		
July 1808	No Quotation.	
Feb. 1809	4 10 0	0 17 4
May 1809	4 11 0	0 17 1-7
Jan. 1810	4 13 3	0 16 9-3
Oct. 9, 1810	4 5 0	0 18 4-2
Feb. 12, 1811	4 12 0	0 16 11-4
Mar. 26, 1811	4 16 0	0 16 3
Oct. 25, 1811	4 18 0	0 15 11
Oct. 2, 1812	5 7 0	0 14 5
Jan. 22, 1813	5 4 0	0 15 0
Aug. 6, 1813	5 10 0	0 14 2
Feb. 1814	5 8 0	0 14 4-2
April 12, 1814	5 5 0	0 14 9
May 31, 1814	5 3 0	0 15 1-7
June 7, 1814	5 0 0	0 15 7-2
June 28, 1814	4 10 0	0 17 4
Sept. 20, 1814	4 6 0	0 18 1-6
Nov. 15, 1814	4 8 0	0 17 8-7
April 4, 1815	5 7 0	0 14 5
June 9, 1815	5 5 0	0 14 10
June 30, 1815	5 0 0	0 15 7-2
July 7, 1815	4 14 0	0 16 7-2
Aug. 4, 1815	4 10 0	0 17 4
Sept. 15, 1815	4 9 0	0 17 6-3
Oct. 13, 1815	4 3 0	0 18 9-5
Jan. 2, 1816	4 2 0	0 19 0-3
April 9, 1816	4 1 0	0 19 8-1
April 23, 1816	4 0 0	0 19 6
July 9, 1816	3 19 0	0 19 8-7
Oct. 8, 1816	3 18 6	0 19 10-2
to April 4, 1817		
April 18, 1817	3 19 0	0 19 8-7
July 18, 1817	4 0 0	0 19 6
Jan. 23, 1818	4 1 0	0 19 8-1
Feb. 13, 1818	4 2 6	0 18 11
Oct. 6, 1818	4 2 0	0 19 0-3
Jan. 22, 1819	4 3 0	0 18 9-5

ON THE REGULATION OF A PAPER CURRENCY.

We have in the article CREDIT, as well as in this one, shewn that it is one of the most important doctrines of Political Economy to understand that instruments of Credit, such as Bills of Exchange, Bank Notes, Bank Credits, &c., are separate and independent articles of property, wholly distinct from money and commodities, and that they do not represent money, as Bills of Lading represent goods. However, they only maintain their value through the belief and confidence that they can be exchanged for money, and if that belief or confidence fail, their whole value vanishes into air. When we consider the colossal amount of this property, which exists in modern times, consisting of many hundreds of millions in value, the destruction of which is in

every respect equivalent to the destruction of any other species of tangible property, we can at once see the amazing importance of the question as to the best method of maintaining the value of this property, and guarding against its liability to destruction. When we consider that the value of this species of property in this country on a moderate estimate cannot be placed at less than £1,000,000,000, and that the cash is not supposed to exceed £70,000,000, we see that the value of the credit is somewhat in what physicists would call a position of unstable equilibrium. This wonderful mass of property may, if mismanaged, come to resemble what is said to have taken place upon opening the tombs of some Etrurian Kings. There appeared to be the form of a man reposing and arrayed in his royal robes, but, upon the slightest vibration disturbing the atmosphere, it immediately sank into a few spoonfulls of dust.

All theories of paper currency, however numerous and perplexed they may appear, may be reduced to three varieties:—

1. To issue paper based upon Bullion.
2. To issue paper based upon Land, the Public Funds, or upon commodities.
3. To issue an inconvertible currency, that is paper money.

We have already given sufficient examples of the last of these, and as the advocates of such a plan in this country are, we believe, almost if not quite extinct, we may pass it over as not worth arguing about. The second theory is John Law's, and as we have given a full account of it under LAW, we refer to that article. We may confine our attention to the first alone, which makes bullion the only proper basis of a paper currency.

But the advocates of this theory are divided into two sects. The one maintains that bank notes, payable to bearer on demand, alone are currency, and excludes all other forms of paper credit from that title; and they maintain this doctrine—

That if bank notes are permitted to be issued they ought to be exactly equal in quantity to the coin they displace.

This is called the CURRENCY PRINCIPLE.

The other party maintains that this limitation is unnecessary, and that it is too severe. They say that if the notes are made payable on demand, and are, practically speaking, convertible at the will of the holder, that the extent of these issues may safely very greatly exceed the amount of specie that would be in circulation under a purely metallic currency. They say that there is no possibility of judging by the absolute numerical quantity of paper whether it is excessive or not, and that the only test whether paper is excessive or not is to be found in the price of gold bullion and the state of the foreign exchanges.

ON THE CURRENCY PRINCIPLE.

We saw in the preceding account of Chinese paper money that when the Government had brought the country to a state of the deepest distress by their extravagant issues of paper money, a writer sighed for the days when no paper was issued except in exchange for specie, and specie was exchanged for paper. This is the first instance, that we are aware of, of the

doctrine which is called the CURRENCY PRINCIPLE. The next enunciation of it that we are aware of is in John Law's *Money and Trade Considered*, p. 73, edit 1755, where he says:—"Some are against all banks where the money does not lie pledged equal to the credit."

It was upon this principle that the Banks of Venice, Amsterdam, and Hamburg were constructed. These places were the centres of a great foreign commerce, and, as a natural consequence, an immense quantity of coin of all sorts, of different countries and denominations, was brought by the foreigners who resorted to them. These coins were, moreover, greatly clipped, worn, and diminished. This degraded state of the current coin produced intolerable inconvenience, disorder, and confusion among merchants, who, when they had to make or receive payment of their bills, had to offer or receive a bagful of all sorts of different coins. The settlement of these bills, therefore, involved perpetual disputes,—which coins were to be received, and which were not, and how much each was to count for. In order to remedy this, it became absolutely necessary that some fixed uniform standard of payment should be devised, to ensure regularity and a just discharge of debts. In order to do this, the magistrates of these cities instituted a Bank of Deposit, in which every merchant placed all their coins of different weights and nations. These were all weighed, and the bank gave him credit, either in the form of notes, or an entry in their books, exactly corresponding to the real amount of the bullion deposited. The owner of this credit was entitled to have a certain quantity of coin of full weight on demand. These credits, therefore, always insured a uniform standard of payment, and it was enacted that all bills upon the respective cities, above a certain amount should be paid in these credits, which were called bank money. The consequence was evident: as this bank money was always exchangeable for money of full weight on demand, it was always at a premium, or *agio*, as compared with the current money. The difference was usually from 5 to 9 per cent. in the different cities. The expression, *agio* or premium, is likely to mislead, because it is evident that it was the bank money that was the true standard, and the current money that was at a discount.

These banks professed to keep all these coins and bullion in their vaults. They made no use of them in the way of business, as by way of discounting bills. Thus the credit created was exactly equal to the specie deposited, and their sole business was to exchange specie for paper, and paper for specie.

They were examples of the CURRENCY PRINCIPLE, and they are the models to which many persons would wish to see all banks reduced, and we shall see that they maintain that paper should fluctuate in quantity exactly as a metallic currency would do if there were no paper; and that if paper is substituted for specie, it can only maintain an equality of value with specie by being exactly equal in quantity to what the specie would have been if there were no paper.

Those who support this doctrine, however, in modern times, rely probably upon some passages in Adam Smith, which we shall now lay before our readers and examine. In B. II. c. 11 (p. 126,

McCulloch's edition) Smith speaks of the substitution of a paper currency for money, and says that the way in which this tends to increase the revenue of the Society is not very obvious, and which he then endeavours to explain. After saying that a banker, who has obtained the confidence of the public, may substitute his own notes for specie, and support their credit by keeping perhaps only one-fifth in specie, he shews what becomes of the remaining specie. He says:—

"Let us suppose, for example, that the whole circulating money of some particular country amounted, at a particular time, to one million sterling, that sum being then sufficient for circulating the whole annual produce of their land and labour. Let us suppose, too, that some time thereafter different banks and bankers issued promissory notes payable to bearer to the extent of one million, reserving in their different coffers £200,000 for answering occasional demands. There would remain, therefore, in circulation £800,000 in gold and silver, and a million of bank notes, or eighteen hundred thousand pounds of paper and money together. But the annual produce of the land and labour of the country had before required only one million to circulate and distribute it to its proper consumers, and that annual produce cannot be immediately augmented by these operations of banking. One million therefore will be sufficient to circulate it after them. The goods to be bought and sold being precisely the same as before, the same quantity of money will be sufficient for buying and selling them. The channel of circulation, if I may be allowed such an expression, will remain precisely the same as before. One million we have supposed sufficient to fill that channel. Whatever, therefore, is poured into it beyond this sum cannot run in it, but must overflow. One million eight hundred thousand pounds are poured into it. Eight hundred thousand pounds therefore must overflow, that sum being over and above what can be employed in the circulation of the country. But though this sum cannot be employed at home, it is too valuable to be allowed to lie idle. It will therefore be sent abroad, in order to seek that profitable employment which it cannot find at home. But the paper cannot go abroad, because at a distance from the banks which issue it, and from the country in which payment of it can be enacted by law, it will not be received in common payments. Gold and silver, therefore, to the amount of eight hundred thousand pounds, will be sent abroad, and the channel of home circulation will remain filled with a million of paper, instead of the million of those metals which filled it before.

"But though so great a quantity of gold and silver is thus sent abroad, we must not imagine that it is sent abroad for nothing, or that its proprietors make a present of it to foreign nations. They will exchange it for foreign goods of some kind or another, in order to supply the consumption either of some other foreign country, or of their own.

"If they employ it in purchasing goods in one foreign country, in order to supply the consumption of another, or in what is called the carrying trade, whatever profit they make will be an addition to the neat revenue of their own

country. It is like a new fund created for carrying on a new trade."

Smith then proceeds to detail the various methods in which he considers such a course will augment the revenue of the country. And we observe this, that though he makes the arbitrary assertion that the annual produce cannot be immediately augmented by the operations of banking, a dogma which we shall consider hereafter, he expressly says that the revenue and wealth of the country are increased by the full amount of the gold and silver exported. Thus we see that he expressly says that the wealth of the country is *increased* by the amount of the credit created.

In the next page he says:—

"When paper is substituted in the room of gold and silver money, the quantity of the materials, tools, and maintenance which the whole circulating capital can supply, may be increased by the whole value of gold and silver which used to be employed in purchasing them. The whole value of the great wheel of circulation and distribution is added to the goods which are circulated and distributed by means of it. * * * When, therefore, by the substitution of paper, the gold and silver necessary for circulation is reduced to, perhaps, a fifth part of the former quantity, if the value of only the greater part of the four-fifths be added to the funds which are destined for the maintenance of industry, it must make a very considerable addition to the quantity of that industry, and consequently to the value of the annual produce of land and labour."

Thus we see that Smith first of all says that the operations of banking can make no increase of the annual produce of the country, and then he says that it must make a very considerable addition to it!

At p. 130, he says:—"The whole paper money of every kind, which can *easily* circulate in any country, never can exceed the value of the gold and silver of which it supplies the place, or which (the commerce being supposed the same) would circulate if there was no paper money. * * Should the circulating paper at any time exceed that sum, as the excess could neither be sent abroad nor be employed in the circulation of the country, it must immediately return upon the banks to be exchanged for gold and silver."

The reader will at once perceive the loose character of the dogmatic assertions contained in this extract. What is the "whole paper money of every kind?" What does he mean by "easily circulate?"

The comments of Mr. Thornton on this passage are so good that we will lay them before our readers. He says (*Essay on Paper Credit*, p. 44) "Does Dr. Smith mean to include, in his idea of the *whole* paper money of *every kind* which can "*easily circulate*," all the bills of exchange of a country, or does he not? And does he also include interest notes, Exchequer bills, and India bonds, and those other articles which very much resemble bills of exchange? In an earlier part of his chapter he has this observation: "There are different sorts of paper money; but the circulating notes of banks and bankers are the species which is best known, and which seems best adapted for this purpose." We are led to judge by this passage, and also by the

term "paper money of every kind," in the passage before quoted that it was his purpose to include bills of exchange; on the other hand, if *all* the bills of exchange of a country are to be added to the bank notes which circulate, it becomes, then, so manifest, that the whole of the paper must be more than equal to the amount of the money which would circulate if there were no paper; that we feel surprised that the erroneous position did not strike Dr. Smith himself. He introduces, indeed, the qualifying word "*easily*;" he speaks of "*the whole paper money of every kind which can easily circulate*." But the term, as I apprehend, is meant only to refer to an easy, in contradistinction to a forced paper circulation; for it is on the subject of a forced circulation that a great part of his observations turn. He seems, on the other hand, to have paid no regard to the distinction on which I have dwelt, of a more slow and a more rapid circulation; a thing which is quite different from an easy and a difficult circulation. He appears, in short, not at all to have reflected how false his maxim is rendered (if laid down in the terms which he has used) both by the different degrees of rapidity of circulation which generally belong to the two different classes of paper of which I have spoken, and also by the different degrees of rapidity which may likewise belong to the circulation of the same kinds of paper, and even of the same guineas, at different times.

"The error of Dr. Smith, then, is this—he represents the whole paper, which can *easily* circulate when there are no guineas, to be the same in quantity with the guineas which would circulate if there were no paper; whereas, it is the quantity not of "*the thing which circulates*," that is of the thing which is *capable* of circulation, but of the actual circulation which should rather be spoken of as the same in both cases. The quantity of circulating paper, that is of paper capable of circulation may be great, and yet the quantity of actual circulation may be small, or *vice versa*. The same note may either effect ten payments in one day, or one payment in ten days; and one note, therefore, will effect the same payments in the one case which it would require a hundred notes to effect in the other."

To shew how utterly futile the notion of Adam Smith is, we have only to recollect that a bill of exchange for £100, with 20 indorsements on it, is equivalent to 20 bills of exchange of £100 each, so that it purely depends upon the convenience of the parties whether there is a single bill of £100, or 20 bills for £100 in circulation.

Such is the doctrine of the Currency Principle as it appears in Smith, and we can clearly see that it is a mere dogmatic assertion, destitute of the smallest shadow of proof, and the history of Banking in Scotland proves its utter falsehood. We have fully explained under *CASH CREDIT* the mechanism of that part of Scotch banking. Now, when to promote a public work or anything else, a Scotch bank creates a credit, and issues a quantity of notes, what pretence is there for saying that they only replace a quantity of specie that was already in existence? Is it not clear that they are in *excess* of the metallic specie? But they produce exactly the same effects as if they were specie, and therefore they are capital

as much as money would be. Adam Smith only asserts the truth of the proposition on the supposition that the commerce remains the same. But what need is there that the commerce should remain the same? On the contrary, the commerce may be immensely extended by this means.

The doctrine of Smith, that the paper money of every kind that can easily circulate in any country is only equal to what the specie would have been if there were no paper, is manifestly false, if bills of exchange be included under the term as Smith clearly includes them.

The sect, however, who support this principle in the present day, rigorously exclude all forms of paper credit from the designation of currency, except Bank Notes payable to bearer on demand, and they maintain that the doctrine is true regarding them. This sect comprehends Lord Overstone, Colonel Torrens, Mr. Norman, and some others. Their opinions have been so fully quoted already in the preceding parts of this article, that we need not repeat them here.

We shall now examine Mr. Mill's opinions. In the Preliminary Remarks to vol. I., he says:—"Further consideration shewed that the uses of money are in no respect promoted by increasing the quantity which exists and circulates in a country; the service which it performs being as well rendered by a small as by a large aggregate amount." The slightest experience of reality shews that this dogma is utterly unfounded. Is it really to be believed that the introduction of fresh money can produce no benefit to a country? Such a statement only requires to be made to be refuted by general experience.

In B. III. cap. 13. § 5, he says—"Another of the fallacies from which the advocates of an inconvertible currency derive support is the notion, that an increase of the currency quickens industry. This idea was set afloat by Hume, in his Essay on Money, and has had many devoted adherents since." Not only has it had many devoted adherents since, but it had many devoted adherents long before Hume was born, as every one the least acquainted with economical literature knows well enough, and as every one knows to be true who has studied economical history.

He then says, § 6—"The substitution of paper for metallic currency is a national gain, *any further increase of paper beyond this is but a form of robbery.*

"An issue of notes is a manifest gain to the issuers, who, until the notes are returned for payment, obtain the use of them as if they were a real capital; and so long as the notes are no permanent addition to the currency, but merely supersede gold or silver to the same amount, the gain of the issuer is a loss to no one; it is obtained by saving to the community the expense of the more costly material. But if there is no gold or silver to be superseded—if the notes are added to the currency, instead of being substituted for the metallic part of it—all holders of currency lose by the depreciation of its value, the exact equivalent of what the issuer gains."

Again in B. III. ch. 22. § 3, he says—"When metallic money had been entirely superseded and expelled from circulation, by the substitution of an equal amount of bank notes, any attempt to keep a still further quantity of paper in circula-

tion must, if the notes are convertible, be a complete failure. The new issue would again set in motion the same train of consequences by which the gold coin had already been expelled. The metals would, as before, be required for exportation, and would be for that purpose demanded from the banks to the full extent of the superfluous notes, which thus could not possibly be retained in circulation."

In B. III. ch. 8. § 2, he says—"It is to be remarked that this ratio would be precisely that in which the quantity of money had been increased. [He is speaking of a sudden increase in the quantity of money.] If the whole money in circulation was doubled, prices would be doubled. If it was only increased one fourth, prices would rise one fourth."

We have only now to consider the mechanism of Banking to see that it at once gives the death-blow to all these brain-spun theories about the Currency Principle, and to shew how futile it is to suppose that it can be carried out in this country.

The early bankers, as we have shewn, received money on deposit, for which they gave their notes. By doing so therefore they only gave paper for specie, and if they had stopped there, that would have been the Currency Principle. But by doing so they would have made no profit for their trouble, unless they had received a commission on the money they kept. But on the contrary, they paid interest for its use. They made profits by discounting commercial bills. And this they did, not by lending out the money they received, as is commonly but erroneously supposed, but by giving their notes payable to bearer on demand. Hence it is quite clear that the whole amount of notes so advanced was in addition to the metallic currency, and therefore a robbery according to Mr. Mill, and so far a violation of the Currency Principle. By this means they multiplied their issues many times greater than the amount of specie they held, and though of course a certain amount would be demanded in specie, yet experience would show that they could safely maintain in circulation about eight or ten times the amount they held in specie.

We will now recall to our readers the first organization of the Bank of England. It was founded by the subscription of £1,200,000 in money to forward the war with France. This money was advanced to Government, and put into circulation. But the Bank was authorised to create, and issue notes to an equal amount in the discount of bills and loans, and the annual sum paid by the Government was supposed to be sufficient to maintain their credit, or convertibility. Now it is quite clear that the sum of £1,200,000 in notes was so much *added* to the previously-existing metallic currency—and therefore robbery according to Mr. Mill—and, by so much, a violation of the Currency Principle.

We have not been able to gather distinctly what were the limits imposed upon the obligations of the Bank at its foundation. It appears to be clear that they did not use cheques, as John Law, writing upwards of twenty years afterwards, says that they were not used in London then. But the increased powers of issue the Bank acquired, enabled them in a very short time to reduce the rate of discount from 8 per cent. to 3 per

cent. This shows how utterly unfounded is Mr. Mill's assertion, B. III., c. xliii, § 4—"An increase of the currency has in itself no effect, and is incapable of having any effect on the rate of interest."

But as the favourers of the Bank Act of 1844 allege that the Currency Principle is carried into effect by that Act, we will show how utterly futile such a notion is. That Act permits a certain amount of issues to be made on public securities, and all above that must be covered by bullion actually deposited, so that the amount of issues permitted always varies with the specie in its vaults. This is supposed to be the Currency Principle. But the least consideration will show that such a notion is a delusion. The Bank purchased the fourteen millions of securities with money advanced to Government, and on the security of the public debt, it is allowed to issue fourteen millions of notes. Is it not quite clear that these fourteen millions of notes are an addition to the mass of the Currency, just as the first £1,200,000 of notes were an addition to the then existing specie? But more than that. The Bank makes advances by means of credits created in its books called deposits, and in a vast quantity of cases these are not turned into notes at all, but are operated upon by means of cheques. Now it is clear that they are an augmentation of the Currency just as much as if they were notes, and yet they are taken no account of by the supporters of the Currency Principle! These "other Deposits," as they are called in the Bank Accounts, may be largely increased without any increase of the notes in circulation, and they are counted as nothing by the believers in the Act! Now what possible difference can it be, whether a man has Bank Notes in his pocket, or a credit in the Bank's books, which he can draw a cheque upon? What the amount of operations effected by means of cheques as compared with those effected by means of notes is, it is of course wholly impossible even to surmise; but, whatever it is, and it must amount to many millions daily, it goes absolutely for nothing in the estimation of those who maintain that nothing but Bank Notes payable on demand are currency!

The simplest consideration will show that those who maintain that the Bank Act carries out the Currency Principle must maintain this proposition—that twice fourteen millions, and besides that, a large and indefinite number of millions are equal to fourteen millions.

We thus see how erroneous it is to suppose that the Bank Act carries into effect the Currency Principle, or that it is possible to do so while the Bank is permitted to do any banking business at all. Every bill discounted by a bank is a violation of the Currency Principle, and is an increase of the Currency, and therefore robbery, according to Mr. Mill.

We shall now examine another supposed attempt to carry the Currency Principle into effect.

When the administration of India was placed by Parliament directly in the hands of the Crown, it became necessary to re-organise its finances, which had been left in a deplorable condition by the Company. Mr. James Wilson, who had taken a conspicuous part in the Anti-Corn Law League, and had founded the *Economist* news-

paper, and had been Secretary to the Treasury, and was supposed to be a great financial authority, was appointed Financial Secretary to the Government of India. If there is any country in the world in which a sound scheme of paper currency would produce greater benefits, or one in which a bad one would produce a more tremendous catastrophe, that country is India. We shall now lay before our readers Mr. Wilson's scheme as contained in his despatch laid before Parliament.

He says that in the advanced stage of Political Economy at which we are arrived, there is so much of general principle universally admitted, that many of the preliminary considerations may be stated as admitted axioms requiring neither argument nor proof.

One of these admitted axioms he states to be: "But in no direct way, as is too often supposed, especially by those who advocate an inconvertible paper currency, can the available capital of a country be added to by an increase of a mere circulating medium, whether it be metallic or paper."

So far is this from being true and universally admitted, that it is notoriously untrue, and is not admitted by any one who ever had a real knowledge of business.

He then says that in order to render paper, which has of itself no *intrinsic* (!) value, a safe and useful substitute for coin, there are certain conditions which must attach to it. These may be thus stated:—

First.—The paper must be identical in exchangeable value with the coin it represents.

Second.—To be identical in value, it should be identical in quantity with the coin which is displaced by its use, so that, in point of fact, the mixed currency of notes and coin would be of the same amount as if it were wholly of coin.

Third.—All the laws which would determine variations in the quantity of the coin in circulation, from time to time, should apply equally to a mixed circulation of coin and paper; *the latter not being an addition to the currency, but only a substitution of a portion of the coin which would otherwise be required.*"

That these doctrines are theoretically true as parts of economic science is, as has been abundantly demonstrated, wholly untenable. Nevertheless, though not theoretically true, it would be quite possible to carry them out into practice; and we shall now see how Mr. Wilson proposed to give practical effect to his theory.

The Bank of England, as our readers know, issues notes partly based, it is said, upon public securities and partly upon bullion, and is supposed, erroneously as we have shewn, to carry into effect the Currency Principle. Mr. Wilson's plan was to found a paper currency somewhat on the model of that of the Bank of England—partly upon specie and partly upon public securities.

Let us now examine what the securities for the issues of the Bank of England really are.

In the first place the Bank bought the Government securities with money. It has, therefore, these securities as its own property. Moreover, the Bank is not an agent of the Government, it is an independent body, and the obligation of one to the other is a *bonâ fide* property. Having, then, this amount of property, the Bank is

allowed to issue an equal amount of notes. But it does not issue them for nothing. They are only issued in discounting bills,—that is in purchasing other property. Supposing then the whole amount issued in purchasing bills, the Bank in exchange for its notes would have acquired an equal amount of property (neglecting the discount for the sake of brevity). Besides that, it has 3 millions of accumulated rest. Consequently, as a total security for the redemption of its 14 millions of notes, it has 14 millions of Government securities, and 14 millions of private securities, and 3 millions of rest, making 31 millions altogether. And thus it has an excess of 17 millions of assets over and above all its liabilities, every farthing of which must be lost before its creditors can lose a penny. No doubt these public securities may become depreciated in their value; but it is clear that all such loss would fall on the bank itself. It is not possible to conceive that the creditors of the bank could ever lose. The insolvency of the bank is therefore a simple impossibility.

Now let us see how Mr. Wilson proposed to organize an analogous paper currency for India.

He proposed to establish a currency commission in connection with the Mint, which was therefore not a body independent of the Government, but the mere agent or servant of the Government, and therefore a part of the Government, and consequently no obligations of the one to the other was valid as an independent security.

The duties of these Commissioners were, amongst other things:—

To exchange with the Treasury and with private persons on demand, notes for coin, and coin for notes.

To purchase at a fixed price silver, bullion and foreign coin.

Now this was carrying out the Currency Principle, and if the duties and powers of the Commissioners had stopped there, that would have been merely substituting paper for an equal amount of coin, and of course there would have been no addition to the currency.

But their next duty was to purchase and hold public securities to an amount not intended to exceed two thirds of the specie deposited with them.

Now as the whole paper issued in exchange for the specie would be in circulation, and two thirds of the specie also would be put into circulation, it is quite clear that this was an augmentation of the currency to that amount.

To exhibit the practical working of this scheme more clearly to our readers, let us take figures.

Let us suppose that the number 252 represents the specie deposited with the Commissioners. Then in exchange for that they issue 252 in notes payable to bearer on demand. Thus the specie and the paper being exactly equal—that is the Currency Principle.

But they may purchase securities to the amount of two-thirds of their specie, or to the amount of 168.

Now there is in circulation 252 in paper payable on demand, and 168 in specie is added to it—making 420 of currency.

But the holders of the 168 in specie may come and deposit it with the Commissioners, and demand notes in exchange for it. When they have done this, the Commissioners will have issued 420

in notes payable on demand, and against that they hold 252 in specie, and 168 in public securities.

But as they have issued 420 in notes and have a reserve of 252 in specie, whereas they are only to maintain a reserve of one third of 420, or 140 in specie, they may purchase 252—140, or 112 of further securities with specie. Consequently by this means they throw 112 of specie into circulation as currency, which is an increase of the 420 in notes already in circulation, making a total of 532.

There is now therefore a sum of 532 of notes in circulation, for which the Commissioners hold 252 in specie and 280 in securities, but as they need only hold the third of 532, or 174 in specie, they have 74 to purchase fresh securities. They thus have a reserve of 174 in specie and 354 in securities.

But the holders of the 74 in specie may come and demand notes in exchange for it, and the same process may be repeated, as is clear, until the notes are issued to the amount of three times 252, or 756, and for this, if the arithmetical process be exhausted, it will be found that the Commissioners will hold 252 in specie and 504 in securities.

But let us mark the consequences. Suppose the securities are purchased at par, and times are peaceful, and affairs flourishing, it may be, there might not be much danger. But suppose political troubles to arise, and the securities to be depreciated 10 or 20 per cent., where is the security for the notes then? It is clear that the Government is insolvent. And as these notes are payable on demand, there would of course be a run for gold. How is that to be met? By the sale of securities—that would at once send them down to such a discount as would be fatal to the Government. But even then the Government would be bankrupt, as the sum that might be raised by selling securities would leave a very large uncovered deficit.

Our readers will at once see how utterly preposterous it is to suppose that such a scheme was in any way analogous to the issues of the Bank of England which are covered by such an immense excess of assets above liabilities. In fact, the more one considers it, the more incredible does it appear that such a visionary delusion should have emanated from any man of sense. It is quite clear that the Government securities in the hands of their own agent were no securities at all. Directly the Government bought up its own obligations, it is quite clear they were extinguished.

To suppose that the Government holding its own securities could make them a basis for paper issues, is as absurd as to suppose that if the Directors of the Bank of England were to sign obligations, and deposit them with the issue department, they could make them a basis for paper issues! Or to suppose that if a man were to sign a promissory note of £1000 to himself, and put it into his own pocket, he could make that a basis for issuing to the public a thousand £1 notes payable to bearer on demand!

What then was the real practical result of this wonderful financial scheme? It was simply this: By means of obtaining 252 in specie from the public, by a series of exchanges, it created 252 of notes payable on demand, and also turned 504 of funded debt, of which only the interest was

demandable from the Government, into 504 of notes payable to bearer on demand!

It is quite easy to see that if this scheme had ever been carried out, it would have infallibly brought on a tremendous financial catastrophe, which would have done more to overthrow the Government than half a dozen mutinies. Fortunately it was immediately quashed by the home authorities. But that such a scheme should emanate from any one holding such a position, is a deep disgrace to British finance in the nineteenth century.

To shew that the quantity of money in a country at any time bears no necessary relation whatever to the quantity of other goods &c., in it, or to their price.

Many writers have supposed that the quantity of money in a country bears some necessary relation to the quantity of other things in it. Thus Smith says, Book II. c. 2.—“What is the proportion which the circulating money of any country bears to the whole value of the annual produce circulated by means of it, it is perhaps impossible to determine. It has been computed by different authors at a fifth, at a tenth, at a twentieth, and at a thirtieth part of that value.” Many more have supposed that variations in prices are caused by variations in the quantity of specie; or, that the prices of commodities are determined by the proportion which the quantity of money bears to the quantity of commodities. That this is a very grievous error can easily be shown. Thus, let us suppose that two persons, A and B, are reciprocally indebted to each other for the sale of goods. Let us deal with small figures, as that will exhibit the principle of the thing as well as large ones. Let us suppose that A has bought goods of B to the amount of £10, and B has bought goods of A to the amount of £13; then it is quite clear that there are three different ways of settling their dealings.

1. Each may send a clerk to the other with the amount of his debt to the other. To settle the matter in this way, would require £23.

2. A may carry £10 to B in discharge of his debt; and B may pay it back to A, together with £3, in discharge of his own. This method would require £13.

3. They may meet and set off their mutual debts against each other, and pay only the difference in coin. This method would require only £3.

Now it is quite clear that a very different amount of money would be required to carry on any given amount of business, according as either of these three methods was adopted. Between the first and the third there is a difference of £20; but there would be no difference in the prices of commodities. So that by a simple change in the method of doing business, £20 might be withdrawn from circulation altogether, if only the same quantity of business can be carried on.

From these considerations it manifestly appears that there may be great quantities of money in a country which may exercise no influence whatever on prices, and that the proportion between money and commodities may vary greatly, according to the method in which business is carried on. Few countries, after adopting the third method, would go back to the first. But many might change from the first to the third. As an example of

the change from the first to the third, we may mention the case of the London banks. Every bank in London has, probably, claims against every other, every morning. The old method used to be, that every morning each bank used to send out clerks to collect the sums due to it from its neighbours. But at the same time it was obliged to keep in reserve a large stock of specie and notes to meet its neighbours' claims on it. The consequence of this system was very manifest. There was an enormous mass of specie and notes kept for no other purpose but to be carried backwards and forwards from one bank to another to settle claims, which might be much more easily settled by being simply set off one against the other. To facilitate this change, a considerable number of the London Banks agreed to have a room where their clerks should meet and set off their mutual claims against each other, and only pay the differences in specie. By a further improvement in the organisation of this institution, no specie or bank notes at all are now used. This method saves the use of many millions of specie or bank notes, which would be required if it did not exist, and it is clear that this vast sum of money, which would be required to fulfil the purpose of the Clearing House, would exercise no influence on prices.

On the Theory of Regulating the Paper Currency by the Discount of Mercantile Bills.

Adam Smith, who is supposed to countenance the doctrine discussed in the preceding section, called the Currency Principle, has, a few pages further on, started another theory, which was strenuously supported by the Directors of the Bank of Ireland in 1804, and those of the Bank of England in 1810; namely, that, as long as Notes are issued in the discount of *bonâ fide* mercantile bills, they cannot be excessive. This very specious theory was controverted by the Bullion Committee, but not in our opinion conclusively. We have endeavoured to demonstrate its fallacy under BULLION REPORT, § 51.

On the Regulation of the Paper Currency by means of the Rate of Discount.

Having shown that the two theories of Paper Currency which have obtained the greatest notoriety in recent times are inconsistent with each other, and both erroneous, we have now to consider what other means there may be of regulating the Paper Currency.

Although it is an error to suppose that the Paper Currency must always be exactly equal to what the specie would have been if there were no paper, and in fact can by no possibility do so whilst the business of banking is allowed to continue, yet it is unquestionably true that the paper should vary proportionably to the specie. The framers of the Bullion Report and of the Act of 1819, as well as all the best authorities of the period, maintained that the mere numerical amount of notes was no criterion as to whether they were over-abundant or not. They maintained that the true criterion was to be found in the price of gold bullion and the state of the Foreign Exchanges. Having regard to these, they said that the more paper there was the better, as it only showed the activity of enterprise.

So long as the paper is convertible at the will of the holder, the price of gold bullion may be omitted, because though the Bank may endanger its stability by excessive issues, yet the market price of gold cannot be affected by them until cash payments have been suspended, and the notes become inconvertible. So long, therefore, as the Paper Currency is convertible, the state of the Foreign Exchanges is the principal thing that need be looked to.

Directly we observe that a debt is an article of merchandise, and may be bought and sold like any other commodity—which was perfectly well understood until the erroneous doctrine was adopted by Economists that labour and materiality are necessary to value—and that the laws governing the price of debts are perfectly analogous to those which govern the prices of all other commodities, we shall find that the subject becomes quite clear and simple.

For many centuries, it was the custom, in this and other countries, to fix the prices of labour and corn. It was considered a heinous crime to lay up corn for the purpose of selling it again. Those who did so were called by various uncouth names, such as Foresters, Reagraters, &c., the meaning of which, we hope, will shortly be known only to antiquaries. At last, writers began to see the fallacy of this. It is one of Smith's merits, we believe, to have been among the first to show the useful part played by corn speculators, who bought up corn when it was cheap, and kept it in reserve until there was a scarcity. After laborious efforts, it came to be generally understood that corn factors, instead of being the cause of the scarcity and dearness of corn, were, in fact, the very persons who prevented it being a great deal more scarce and dear than it was; and, so far from aggravating variation in prices, were in fact the great mitigators of them. That, so far from being the noxious vermin they were supposed by the ignorant vulgar to be, they were great public benefactors.

But long after the evil effects of meddling with the value of labour and commodities were fully understood, people clung to the chimera of fixing a maximum price for debts, or discount, and while it was lawful to take any amount by way of commission, or extraneous charges, it was held to be a legal and moral crime to take anything above a certain amount by way of interest. Such is the weakness of human nature, that Adam Smith himself, who had done so much to enlighten the world as to the mischief of meddling with prices, gives most fantastical reasons for maintaining a maximum rate of interest. This called forth Bentham's admirable *Defence of Usury*. The usury laws produced the most serious inconveniences in every commercial crisis, and yet no effort was made to repeal them till 1834, when bills and notes of not more than three months' date, were exempted from their operation; and it was not till 1854, that the last remnants of them were abolished, and contracts for money left free.

Directly we observe that a debt is simply an article of merchandise, and that banking is simply buying and selling debts, we have only to observe the analogy between that and every other species of merchandise, and the proper method of controlling the paper currency becomes obvious and simple.

As discounting bills is simply buying debts, the price of such debts must follow exactly the same laws as the price of corn, or any other article. If money is very scarce, and wheat very abundant, the price of wheat must rise. The price of debts obeys the same rules. If money becomes very scarce, the price of debts must fall, i.e., the discount must rise. If money becomes abundant, the price of debts will rise, i.e. the discount will fall. The price of debts, then, must follow the same great laws of nature that the price of wheat does. Every one knows now that it is a great error to control the price of corn. As we have shown (*PRICES; THEORY OF*) it is not the fluctuation of the price of wheat that is the evil. The real evil is the change in the proportion of the demand and supply, and the fluctuation of the price is the grand natural corrector of the evil. A high price of corn is the way to *attract* corn to where it is deficient, and a low price repels it from where it is already too abundant. Nothing can be more erroneous policy than to force down the price of wheat when there is a real scarcity, and to sell it below the price it would naturally attain to.

Now apply all the arguments which irresistibly govern the case of wheat to the case of credit, or debts, and the same results follow. The same great law of nature operates to preserve the due proportion between money and credit, and any interference with this great law must necessarily be attended with the same evil consequences as an interference with the natural price of wheat. And yet almost all legislation up to a very recent period, and the great majority of writers on political economy, and too many of the commercial world were in a perverse combination to thwart this great law of nature, and to attempt to keep the rate of discount, or the price of debts, fixed at a uniform rate!

While, therefore, the greater part of commercial complaints were levelled against variations in the rate of discount as the great evil—the truth is, they are only the sign of the evil. The real evil is the altered proportion between money and credit, and a variation in the rate of discount is the grand natural corrector of the evil. To attempt to keep the rate of discount uniform, is to thwart and contravene the laws of nature just the same as an attempt to fix the price of wheat. Like all true laws of nature, the simplicity, beauty and perfection of its action is marvellous, and it produces a multitude of results which are not perhaps very obvious at first. If money is leaving the country and becoming scarce compared to credit, every principle of nature shows that the value of money must rise, i.e., the rate of discount must rise; and this prevents the outflow of bullion, and attracts it from abroad. On the other hand, if money be flowing into the country, and likely to become too abundant compared to credit, a fall in its value, or a fall in the rate of discount *repels* it from the country. If a nation be visited with a great failure of the crops, it can only buy such food from foreign countries with its commodities, or its money—it cannot send its credit as permanent payment abroad. Now, if commodities are too dear, it must pay with money, and credit in this country is the great producing power; and credit, *for a time*, is a great sustainer of prices by enabling people to withhold their commodities from the

market. Now, raising the rate of discount curtails credit, forces sales, and thereby lowers the price of commodities, and makes it less profitable to export specie, and more profitable to export goods. Moreover, this rise in the value of money here, i.e., the low price of debts and commodities, tempts buyers from neighbouring countries to bring their money here. It thus causes an influx of money, and brings the value of the currency here to a nearer level with that of other countries. Again, if this nation has to spend a great part of its money in buying foreign corn, it is quite clear it has not got so much to spend in purchasing goods; an over-production of goods therefore can only end in a disastrous fall in prices. And here, too, the beautiful action of this great law of nature is manifest. So enormous a proportion of the commodities of this country are produced by the credit system, that a rise in the rate of discount just hits profits between wind and water, as we may say. Consequently, a rise in the rate of discount retards and curtails production in proportion to the diminished consuming powers of the nation, and so prevents such a ruinous fall in price, as would necessarily follow an undiminished production, accompanied by a diminished power of consumption.

In fact, when a commercial crisis occurs in a country, it invariably means that more persons are wishing to sell than there are persons wishing to buy, or at least at remunerative prices. A commercial crisis invariably arises from a lack of purchasers, which is, in fact, over-production. True prudence, therefore, shows, that in all commercial crises, *production should be curbed*. It is better not to produce at all, than to produce and be obliged to sell at a loss. To produce and be obliged to sell below cost of production is loss of capital. It is better, therefore, not to employ the capital at all than to lose it. Raising the rate of discount, therefore, acts as a timely warning to producers to hold hard. It is necessary to dispose of the stock already produced before producing more, and if the stream of sale is stopped while production continues, it can only tend to a more aggravated fall at last.

Now, what is the necessary consequence of an attempt to thwart this great law of nature? In time of scarcity of food, and a necessary export of money to buy it, if the rate of discount be kept unnaturally low, nothing but money will go, commodities are too dear, they will not go. Again, money being kept at an unnaturally low rate here, no one will bring it here from neighbouring countries; consequently, great quantities of money will go out and none will come in, till at last the circulating medium will be nothing but "promises to pay," and no money to pay them with. Then, at last, violent convulsions, total destruction of credit, every one wishing to sell, and no one wishing or able to buy.

On the other hand, if, when money is flowing in with too great abundance, it be not repelled by a due diminution in the value of money, i.e., a fall in the state of discount, it will continue to do so until it is so superabundant, that a violent fall takes place. Persons who are accustomed to depend on the income they receive from the interest of money, suddenly find their means are seriously diminished. Then wild speculations find favour in the public mind, promising higher

profits, and thus the community goes through the cycle of bubble speculation, extravagant credit, ending in commercial catastrophe. In 1824, money was so abundant, that the Scotch Banks gave no interest on deposits. Then came 1825. It is perfectly certain that during the various crises this country has passed through, if more attention had been paid to observe the natural rate of discount, instead of thwarting the course of nature, though the variations would have been more frequent, they would have been less violent and extreme. If money is coming in with too great speed, it is good to lower the rate of discount quickly, to prevent it getting lower; if money is going out too rapidly, it is good to raise the rate quickly, to prevent it being higher.

Hitherto, however, a great number of persons have thought that a uniform and invariable rate of discount is the great thing to be preserved, no matter what nature may say to the contrary; and much ingenuity has been given to devise a plan for always keeping it so, just as if the governor of a steam engine ought always to revolve with uniform velocity. The inevitable consequence of taking these means to thwart nature will be, that when money is scarce, it will be repelled by a lower rate than the natural one; when it is already too abundant, it will be still further attracted by a rate higher than the natural one.

Many have supposed that the object ought to be to maintain the currency at a uniform amount, and have proposed that as gold goes out, paper should be issued to supply its place. Thus, Sir Archibald Alison, who condemns the theory that gold and paper should vary together, says (*History of Europe, Vol. II. p. 391.*):—"The true system would be just the reverse. Proceeding on the principle that the great object is to equalise the currency, and with it prices and speculation, it would *enlarge* the paper currency when the precious metals are withdrawn, and credit is threatened with a stoppage, and proportionally contract it when the precious metal returns, and the currency is becoming adequate without any considerable addition to the paper." This plan has been tried over and over again, and has been uniformly attended with a catastrophe. When gold was leaving the country in vast quantities, in 1796, the Bank of England still maintained its issues, against its own will, it is true, but yet the *fact* illustrates the *principle*—and the consequence was the suspension of cash payments, in 1797. When the Bank had got right again, in 1817, a drain for foreign loans began, and the Bank extended its issues in 1818, and the consequence was the second suspension of cash payments, in 1819. In 1824, when bullion was departing from the country like a flood, the Bank extended its issues. Then, when it saw itself right in the vortex of bankruptcy, it suddenly altered its policy, and the result of this was the catastrophe of 1825. In 1838-9, a similar drain occurred; the Bank, with marvellous perversity, maintained its rate of discount considerably below the market rate, and the result was the monetary crisis of 1839. In 1847, there was the same error, and the same result. Surely these instances are enough to destroy this fatal delusion.

In fact, those writers who maintain this doctrine—or rather, we may say, who did so, because they are almost if not quite extinct—wholly mistake the object to be sought for in so delicate

and artificial a machine as a Paper Currency. The object to be aimed at is not to preserve a uniform rate of discount, or a uniform quantity of currency in this country, but to maintain a uniformity in the VALUE of the British Currency with that of other countries. If money be made artificially cheap in this country, that is, cheaper than it is in neighbouring countries, persons in this country will *export* it to where it is of greater value; they will buy foreign securities, they will buy foreign commodities. On the other hand, foreign nations will flood this country with their securities, just as the Americans did in 1839—when the Bank kept down the rate of discount below its proper level—because they can sell them at a better price here than in their own country. If a man wishes to sell a horse, and my neighbour will only give £90 for it, and I will give £96, he of course will sell the horse to me and take away my cash. So, when the Americans wished to sell their debts, and found that in their own country they could only get £90 per cent. for them, whereas they could get £97 per cent. for them in England, as a natural consequence they sent them to England for sale, and took away the cash. The only way for England to have stopped this would have been to give no more for these securities than the Americans would themselves; in other words, to maintain a uniformity in value between the currencies of the two countries.

There are, also, other considerations which shew that the rate of discount is the true method of acting upon the Paper Currency. It has almost universally been supposed that Bills of Exchange arise only out of previous commercial transactions between countries; and, therefore, that if there have been no transactions there can be no Bills. Under the article EXCHANGES, FOREIGN, we have shown the fallacy of this notion, and explained that when *The Rate of Discount in two countries exceeds the Cost of the Transmission of Bullion between them, Bills of Exchange are fabricated for the express purpose of exporting bullion.* If the rate of discount at Paris is 6 per cent., and the rate in London 4 per cent., not only will debts fly from Paris to buy bullion, and bullion fly from London to Paris to buy debts, but debts will be created in London for the express purpose of buying bullion in London at 4 per cent., and selling it in Paris for 6 per cent. And this, of course, will manifestly go on as long as this difference is maintained. There is no other method of preventing such operations, but by equalising the rates of discount at London and Paris—this of course effectually prevents all such operations. If only the numerical amount of notes be looked to, and the rate of discount be kept down, these speculators may get their bills passed, while legitimate trade bills may be refused. A moderate rise in the rate of discount will never inflict any real injury on trade, at all equal to the refusal to discount trade bills altogether, and that is the result which has always ensued from a perseverance in keeping down the value of money below its natural level.

We are happy to say that this great truth is now generally admitted and acted upon. Within the last few years, the Bank of England have fully understood it, and the Usury Laws in France have recently been modified, so as to permit the Bank of France to counteract drains of bullion

by their natural controller—the rate of discount. In order to carry this into effect, the Directors of the Bank have only to fix upon some sum which they consider is absolutely necessary to secure the convertibility of the note—say eight millions for example. They should then determine that as their treasure gradually diminishes to this point, the rate of discount should gradually rise to such a rate as would, under all ordinary circumstances, prevent bullion from leaving the country, say 10 per cent. or thereabouts. As the bullion gradually rose, the rate of discount should gradually fall. Of course it is impossible to state absolutely what the exact rate should be, as it would always depend upon the state of the Foreign Exchanges, but in our *Theory and Practice of Banking*, 1856, we gave such a scale; and, on comparing the scale given there with that actually adopted by the Bank, (Discount) it will be seen that the Bank has very nearly followed the scheme there given.

If such a scale had been adopted in former times by the Bank it would have prevented most of those terrible catastrophes which have so often happened. It would have rendered any legal regulation of the number of Bank Notes unnecessary, and it would enable the Bank to surmount monetary crises without aggravating them into panics. The experience of the two great crises of 1847 and 1857 has fully confirmed the accuracy of the arguments upon which this plan rests; and when the Bank Act broke down, it was the plan recommended by the Government, and adopted with perfect success. The Bank was permitted to make unlimited issues to stay the panic, but at a very high rate of discount. Every one knows that this is the plan which must be adopted on the recurrence of all future crises. Hence we “conclude that reason, evidence and experience combine to demonstrate that,” it is a false and dangerous principle to fix the numerical amount of paper issues; and that the only true method of REGULATING THE PAPER CURRENCY IS BY CAREFULLY ADJUSTING THE RATE OF DISCOUNT TO THE STATE OF THE FOREIGN EXCHANGES. (CRISIS, COMMERCIAL; DISCOUNT; EXCHANGES, FOREIGN.)

CURRIFEX, JOHANNES.

Tractatus de vicio proprietatis. 1505.

CURZON, EMMANUEL DE.

Etudes sur les enfans trouvés au point de vue de la législation, de la morale et de l'économie politique.

CUSTODI, PIETRO. The Baron, a distinguished Italian Economist, who collected and published a series of Italian writers on Political Economy, under the name of *Scrittori classici italiani di economia politica*. Milano, 1803—1816.

PARTE ANTICA.

TOM I. (1) *Breve Trattato delle cause che possono far abbondare li regni d'oro e d'argento dove non sono miniere*, di Antonio Serra.

(2) *Discorsi e relazioni sulle monete del regno di Napoli* di Gian-Donato Turbolo.

II. (1) *Lezione delle monete*, di Bernardo Davanzati.

(2) *Discorso sopra le monete e della vera proporzione tra l'oro e l'argento*, di Gasparo Scaruffi.

- III. *Della moneta, trattato mercantile*, di Geminiano Montanari.
- IV. (1) *Trattato de, tributi*, di Carlo Antonio Broggia.
- (2) *Trattato delle monete considerate ne' rapporti di legittima riduzione di circolazione e di deposito*, di Carlo Antonio Broggia.
- V. (1) *Trattato delle monete*—Continuazione.
- (2) *Due frammenti estratti dal trattato politico della sanità*.
- VI. *Osservazioni sopra il prezzo legale delle monete*, di Pompeo Neri.
- VII. *Documenti annessi alle osservazioni sopra il prezzo legale delle monete*, di Pompeo Neri.
- PARTE MODERNA.
- TOM. I. (1) *Elogio di Salustio Antonio Bandini scritto da Giuseppe Gorani*.
- (2) *Discorso economico scritto dall' arcidiacono Salustio-Antonio Bandini*.
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- (2) *Saggio sopra il giusto pregio delle cose della moneta e sopra il commercio dei Romani*, di Gio. Francesco Pagnini.
- III. *Della moneta*, di Ferdinando Galiani. Libri I & II.
- IV. Idem. Libri III, IV, & V.
- V. *Dialogues sur le commerce des blés*, par l'abbé Ferd. Galiani.
- VI. (1) *Continuation des dialogues*.
- (2) *Estratto del discorso sulla perfetta conservazione del grano scritto e pubblicato per ordine e sotto il nome di Bartolommeo Intieri*, da Ferdinando Galiani.
- VII. *Lezioni di economia civile*, di Antonio Genovesi.
- VIII. *Lezioni*—continuazione.
- IX. (1) *Lezioni*—continuazione.
- (2) *Opuscoli di economia politica*, di Antonio Genovesi.
- X. *Continuazione degli opuscoli economici*, di Antonio Genovesi.
- XI. *Elementi di Economia pubblica*, di Cesare Beccaria.
- XII. (1) *Elementi*—Continuazione.
- (2) *Della riduzione delle misure di lunghezza all' uniformità per lo stato di Milano, relazione del Consigliere Cesare Beccaria presentata al magistrato camerale*.
- XIII. (1) *Dell' origine e del commercio della moneta e dei disordini che accadono nelle alterazioni di essa*, dissertazione di Gian-Rinaldo Carli.
- (2) *Digressione sur la proporzione media fra i metalli monetati estratta dalla dissertazione sulle monete* di Gian-Rinaldo Carli.
- (3) *Del valore e della proporzione de' metalli monetati coi generi in Italia prima della scoperta dell' India col confronto del valore e della proporzione de' tempi nostri*, dissertazione di Gian-Rinaldo Carli.
- XIV. (1) *Osservazioni preventive al piano intorno alle monete di Milano*, di Gian-Rinaldo Carli.
- (2) *Nuove osservazioni sulla riforma delle monete*, di Gian-Rinaldo Carli.
- (3) *Relazione del censimento dello stato di Milano*, di Gian-Rinaldo Carli.

- (4) *Breve Ragionamento sopra i Bilanci economici delle nazioni*, di Gian-Rinaldo Carli.
- (5) *Del libero commercio de' grani*, lettere di Gian-Rinaldo Carli al presidente Pompeo Neri.
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- XVI. (1). *Sulle leggi vincolante principalmente nel commercio de' grani*, riflessioni di Pietro Verri.
- (2) *Dialogo del disordine delle monete nello stato di Milano nel 1762*, di Pietro Verri.
- (3) *Estratto del progetto di una tariffa dell' mercanzia per lo stato di Milano presentato al magistrato camerale* di Pietro Verri.
- XVII. (1) *Memorie storiche sulla economia pubblica dello stato di Milano*, di Pietro Verri.
- (2) *Osservazioni sulla tortura e singolarmente sugli effetti che produce all' occasione dell' unzioni malefiche, alle quali si attribui la pestilenza che devastò Milano l' anno 1630*, di Pietro Verri.
- (3) *Varii opuscoli di economia pubblica di Pietro Verri ed altri due di diversi autori relativi alle di lui opere*.
- XVIII. *Lettere scelte sull' agricoltura, sul commercio e sulle arti*, di Antonio Zanon.
- XIX. (1) *Apologia della mercatura*, lettere di A. Zanon.
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- (2) *I veri mezzi di render felici le società di Ferdinando Paoletti*.
- XXI. *Della economia nazionale. libri sei*, di Giammaria Ortes.
- XXII. *Della economia*—Continuazione.
- XXIII. *Lettere di Giammaria Ortes in proposito di suo libro della economia nazionale*.
- XXIV. (1) *Riflessioni sulla popolazione delle nazioni per rapporto all' economia nazionale* di Giammaria Ortes.
- (2) *Delle scienze utili e delle dilettevoli per rapporto alla felicità umana ragionamento*, di Giammaria Ortes.
- (3) *Calcole sopra il valore delle opinioni e sopra i piaceri e i dolori della vita umana*, di Giammaria Ortes.
- (4) *Lettere di Giammaria Ortes al conte Francesco Algarotti e al sig. auditore Michele Ciani*.
- XXV. (1) *Errori popolari intorno all' economia nazionale considerati sulle presente controversie tra i laici e i chierici en ordine al possedimento de' beni*, di Giammaria Ortes.
- (2) *Lettere sulla religione e il governo de' popoli*, di Giammaria Ortes.
- XXVI. *Lettera sulla religione*—Continuazione.
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- XXVIII. *Esame economico del sistema civile di Filippo Briganti*.
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(2) *Risposta al quesito: se in uno stato di terreno fertile favorir debbasi maggiormente l'estrazione delle materie prime ovvero quella delle manifatture*, di Giambattista Gherardo d'Arco.

(3) *Del diritto ai transiti*, di Giambattista Gherardo d'Arco.

(4) *Dissertazione sopra il quesito: se in uno stato di terreno fertile favorir debbasi maggiormente l'estrazione delle materie prime, ovvero quella delle manifatture*, del dottor Giovanni Scottoni.

XXXII. *Delle leggi politiche ed economiche*, di Gaetano Filangieri.

XXXIII. (1) *Della moneta, saggio politico*, di Giambattista Vasco.

(2) *Delle università delle Arti e Mestieri*, dissertazione di Giambattista Vasco.

(3) *Mémoire sur les causes de la mendicité et sur les moyens de la supprimer*, par J. B. Vasco.

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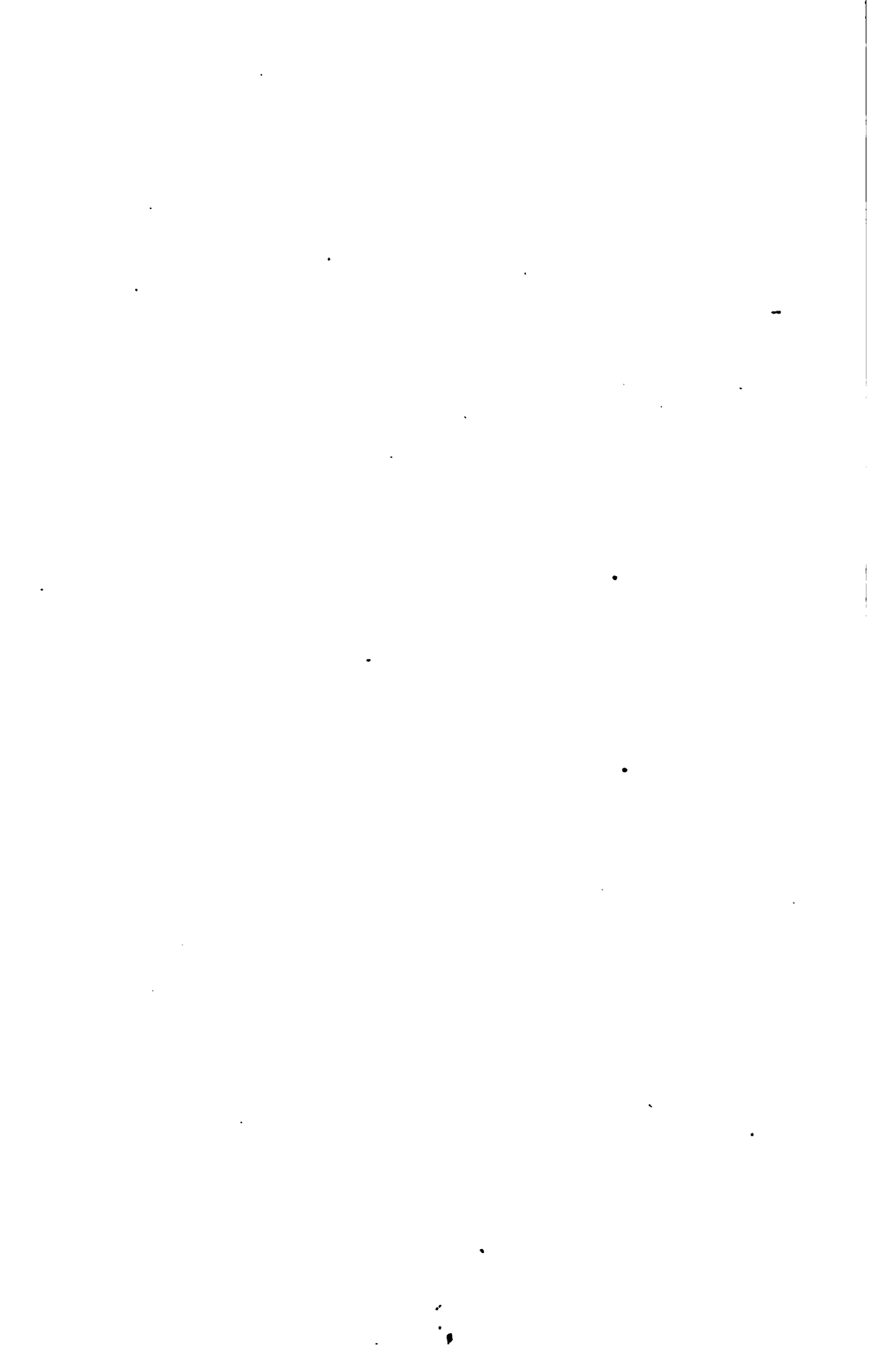
Essayo económico-político á propósito de la reforma de Aranceles. Barcelona, 1851.

CZÖRNIG, C. F., VON, Director of the Statistical Office at Vienna.

Statistisches von Oesterreich.

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